This is a digital copy of a book that was preserved for generations on library shelves before it was carefully scanned by Google as part of a project to make the world's books discoverable online.

It has survived long enough for the copyright to expire and the book to enter the public domain. A public domain book is one that was never subject to copyright or whose legal copyright term has expired. Whether a book is in the public domain may vary country to country. Public domain books are our gateways to the past, representing a wealth of history, culture and knowledge that's often difficult to discover.

Marks, notations and other marginalia present in the original volume will appear in this file - a reminder of this book's long journey from the publisher to a library and finally to you.

Usage guidelines

Google is proud to partner with libraries to digitize public domain materials and make them widely accessible. Public domain books belong to the public and we are merely their custodians. Nevertheless, this work is expensive, so in order to keep providing this resource, we have taken steps to prevent abuse by commercial parties, including placing technical restrictions on automated querying.

We also ask that you:

+ *Make non-commercial use of the files* We designed Google Book Search for use by individuals, and we request that you use these files for personal, non-commercial purposes.

+ *Refrain from automated querying* Do not send automated queries of any sort to Google's system: If you are conducting research on machine translation, optical character recognition or other areas where access to a large amount of text is helpful, please contact us. We encourage the use of public domain materials for these purposes and may be able to help.

+ *Maintain attribution* The Google "watermark" you see on each file is essential for informing people about this project and helping them find additional materials through Google Book Search. Please do not remove it.

+ *Keep it legal* Whatever your use, remember that you are responsible for ensuring that what you are doing is legal. Do not assume that just because we believe a book is in the public domain for users in the United States, that the work is also in the public domain for users in other countries. Whether a book is still in copyright varies from country to country, and we can't offer guidance on whether any specific use of any specific book is allowed. Please do not assume that a book's appearance in Google Book Search means it can be used in any manner anywhere in the world. Copyright infringement liability can be quite severe.

About Google Book Search

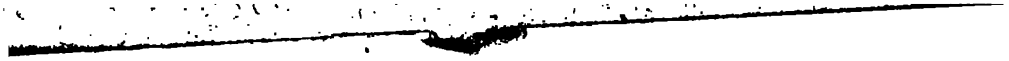
Google's mission is to organize the world's information and to make it universally accessible and useful. Google Book Search helps readers discover the world's books while helping authors and publishers reach new audiences. You can search through the full text of this book on the web at `http://books.google.com/`

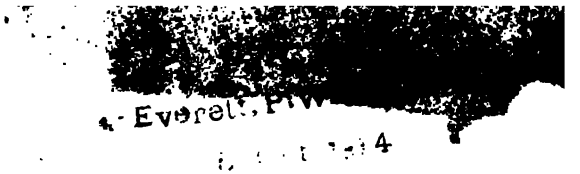
3 3433 06181652 0

ANNEX REFERENCE SERVICES
REF. DEPT. BOOKS
521 WEST 43RD STREET
Between 10th and 11th Avenues

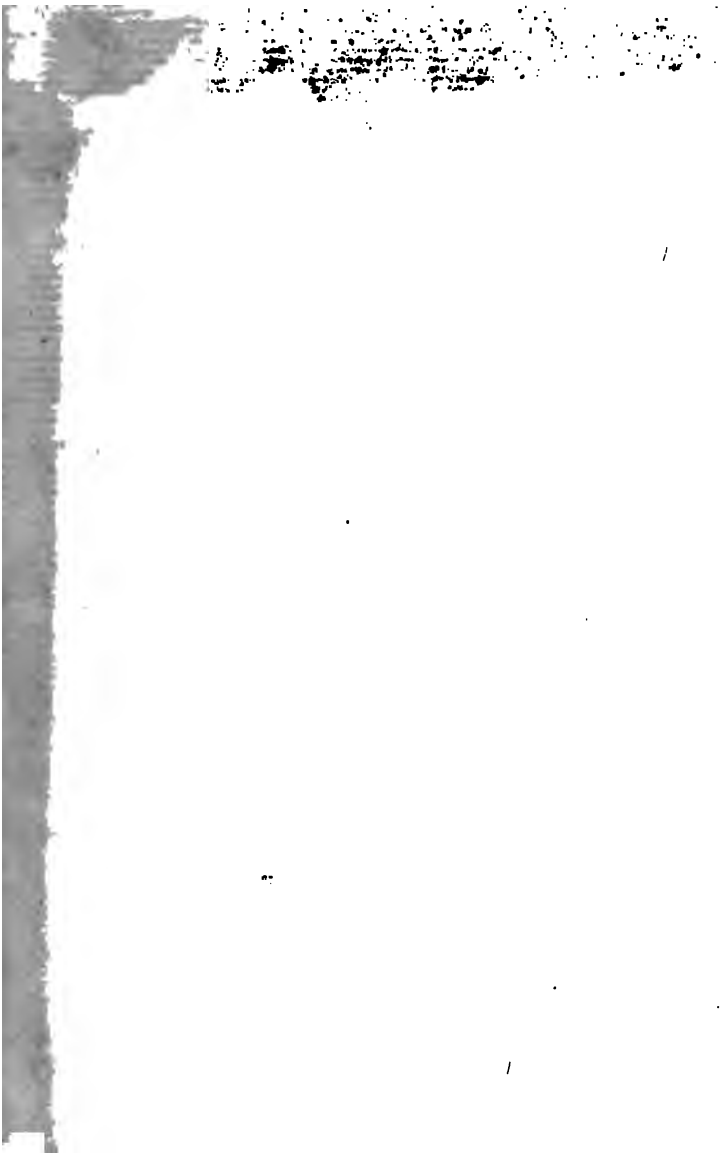
ANNEX

Edgeworth
SSC





Edgeworth



A. L. I. S.

PRACTICAL EDUCATION,

VOL. III.

PRACTICAL EDUCATION;

BY

MARIA and R. L. EDGEWORTH.

THE SECOND EDITION.

IN THREE VOLUMES.

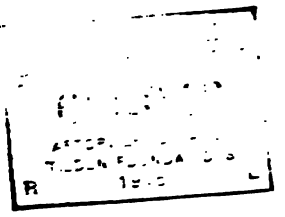
VOL. III.

London:

PRINTED FOR J. JOHNSON, ST. PAUL'S CHURCH-YARD,

By J. Crowder, Warwick-Square.

1801.



PRACTICAL EDUCATION.

CHAPTER XX.

ON FEMALE ACCOMPLISHMENTS, MASTERS, AND GOVERNESSES.

SOME years ago an opera dancer at Lyons, whoſe charms were upon the wane, applied to an Engliſh gentleman for a recommendation to ſome of his friends in England, as a governeſs for young ladies. "Do you doubt," ſaid the lady, (obſerving that the gentleman was ſomewhat confounded by the eaſy aſſurance of her requeſt,) "do you doubt my capability? "Do I not ſpeak good Pariſian French? Have I "any provincial accent? I will undertake to "teach the language grammatically. And for "muſic and dancing, without vanity, may I not

"pretend to teach them to any young perſon?" The lady's excellence in all theſe particulars was unqueſtionable. She was beyond diſpute a highly accompliſhed woman. Preſſed by her forcible interrogatories, the gentleman was compelled to hint, that an Engliſh mother of a family might be inconveniently inquiſitive about the private hiſtory of a perſon who was to educate her daughters. "Oh," ſaid the lady, "I can change my name; and at my age no-"body will make farther inquiries."

Before we can determine how far this lady's pretenſions were ill founded, and before we can exactly decide what qualifications are moſt deſirable in a governeſs, we muſt form ſome eſtimate of the poſitive and relative value of what are called accompliſhments.

We are not going to attack any of them with cynical aſperity, or with the ambition to eſtabliſh any new dogmatical tenets in the place of old received opinions. It can, however, do no harm to diſcuſs this important ſubject with proper reverence and humility. Without alarming thoſe mothers, who declare themſelves

above all things anxious for the rapid progreſs of their daughters in every faſhionable accompliſhment, it may be innocently aſked, what price ſuch mothers are willing to pay for theſe *advantages*. Any price within the limits of our fortune! they would probably exclaim.

There are other ſtandards by which we can meaſure the value of objects, as well as by money. "Fond mother, would you, if it were "in your power, accept of an opera-dancer for "your daughter's governeſs, upon condition "that you ſhould live to ſee that daughter dance "the beſt minuet at a birth-night ball?"

"Not for the world," replies the mother. "Do you think I would hazard my daughter's "innocence and reputation, for the ſake of ſee-"ing her dance a good minuet? Shocking! "Abſurd! What can you mean by ſuch an "outrageous queſtion?"

"To fix your attention. Where the mind "has not preciſely aſcertained its wiſhes, it is "ſometimes uſeful to conſider extremes; by "determining what price you will *not* pay, we "ſhall at length aſcertain the value which you

" ſet upon the object. Reputation and inno-
" cence, you ſay, you will not, upon any ac-
" count, hazard. But would you conſent that
" your daughter ſhould, by univerſal acclama-
" tion, be proclaimed the moſt accompliſhed
" woman in Europe, upon the ſimple condition,
" that ſhe ſhould paſs her days in a nunnery?"

" I ſhould have no right to make ſuch a con-
" dition; domeſtic happineſs I ought certainly
" to prefer to public admiration, for my daugh-
" ter. Her accompliſhments would be of little
" uſe to her, if ſhe were to be ſhut up from
" the world: who is to be the judge of them in
" a nunnery?"

" I will ſay no more about the nunnery. But
" would not you, as a good mother, conſent
" to have your daughter turned into an auto-
" maton for eight hours in every day for fifteen
" years, for the promiſe of hearing her, at the
" end of that time, pronounced the firſt private
" performer at the moſt faſhionable, and moſt
" crowded concert in London?"

" Eight hours a day for fifteen years are too
" much. No one need practiſe ſo much to be-
" come the firſt performer in England?"

"That is another queſtion. You have not "told me whether you would ſacrifice ſo much "of your daughter's exiſtence for ſuch an ob- "ject, ſuppoſing that you could obtain it at no "other price."

"For *one* concert," ſays the heſitating mother; "I think it would be too high a price, "Yet I would give any thing to have my "daughter play better than any one in England. "What a diſtinction! She would be immedi- "ately taken notice of in all companies! She "might get into the firſt circles in London! "She would want neither beauty nor fortune "to recommend her! She would be a match "for any man, who has any taſte for muſic! "And muſic is univerſally admired, even by "thoſe who have the misfortune to have no "taſte for it. Beſides, it is ſuch an elegant "accompliſhment in itſelf! Such a conſtant "ſource of innocent amuſement! Putting every "thing elſe out of the queſtion, I ſhould wiſh my "daughter to have every poſſible accompliſh- "ment; becauſe accompliſhments are ſuch "charming *reſources* for young women, they

" keep them out of harm's way, they make a " vaſt deal of their idle time paſs ſo pleaſantly " to themſelves and others! This is my *chief* " reaſon for liking them."

Here are ſo many reaſons brought together at once, along with the chief reaſon, that they are altogether unanſwerable; we muſt ſeparate, claſs, and conſider them one at a time. Accompliſhments, it ſeems, are valuable, as being the objects of univerſal admiration. Some accompliſhments have another ſpecies of value, as they are tickets of admiſſion to faſhionable company. Accompliſhments have another, and a higher ſpecies of value, as they are ſuppoſed to increaſe a young lady's chance of a prize in the matrimonial lottery. Accompliſhments have alſo a value as reſources againſt ennui, as they afford continual amuſement and innocent occupation. This is oſtenſibly their chief praiſe; it deſerves to be conſidered with reſpect. Falſe and odious muſt be that philoſophy which would deſtroy any one of the innocent pleaſures of our exiſtence. No reward was thought too high for the invention of a new pleaſure; no puniſhment would be thought too ſevere for thoſe who would deſtroy

an old one. Women are peculiarly reſtrained in their ſituation, and in their employments, by the cuſtoms of ſociety: to diminiſh the number of theſe employments, therefore, would be cruel; they ſhould rather be encouraged, by all means, to cultivate thoſe taſtes which can attach them to their home, and which can preſerve them from the miſeries of diſſipation. Every ſedentary occupation muſt be valuable to thoſe who are to lead ſedentary lives; and every art, however trifling in itſelf, which tends to enliven and embelliſh domeſtic life, muſt be advantageous, not only to the female ſex, but to ſociety in general. As far as accompliſhments can contribute to all or any of theſe excellent purpoſes, they muſt be juſt objects of attention in early education.

A number of experiments have already been tried; let us examine the reſult. Out of the prodigious number of young women who learn muſic and drawing, for inſtance, how many are there, who, after they become miſtreſſes of their own time, and after they have the choice of their own amuſements, continue to practiſe

theſe accompliſhments for the pure pleaſure of the occupation? As ſoon as a young lady is married, does not ſhe frequently diſcover, that "ſhe really has not *leiſure* to cultivate talents "which take up ſo much time." Does not ſhe complain of the labour of practiſing four or five hours a day to keep up her muſical character? What motive has ſhe for perſeverance; ſhe is, perhaps, already tired of playing to all her acquaintance. She may really take pleaſure in hearing good muſic; but her own performance will not then pleaſe her ear ſo much as that of many others. She will prefer the more indolent pleaſure of hearing the beſt muſic that can be heard for money at public concerts. She will then of courſe leave off playing, but continue very fond of muſic. How often is the labour of years thus loſt for ever!

Thoſe who have excelled in drawing do not appear to abandon the occupation ſo ſuddenly; it does not demand ſuch an inordinate quantity of time to keep up the talent; the exertion of the imitative powers is agreeable; the employment is progreſſive, and therefore the mind is carried on to complete what has been begun.

Independently of all applauſe, which may be expected for the performance, there is a pleaſure in going on with the work. But ſetting aſide enthuſiaſm and habit, the probability that any ſenſible perſon will continue to purſue a given employment, muſt depend, in a great meaſure, upon their own conviction of its utility, or of its being agreeable to thoſe whom they wiſh to pleaſe. The pleaſure, which a lady's friends receive from her drawings, ariſes chiefly from the perception of their comparative excellence. Comparative excellence is all to which gentlewomen artiſts uſually pretend, all to which they expect to attain; poſitive excellence is ſcarcely attained by one in a hundred. Compared with the performances of other young ladies of their acquaintance, the drawings of Miſs X or Y may be juſtly conſidered as charming! admirable! and aſtoniſhing! But there are few drawings by young ladies which can be compared with thoſe of a profeſſed artiſt. The wiſhes of obliging friends are ſatisfied with a few drawings in handſome frames, to be hung up for the young lady's credit; and when it is

allowed amongſt their acquaintance that ſhe draws in a *ſuperior* ſtyle, the purpoſe of this part of her education is ſatisfactorily anſwered. We do not here ſpeak of thoſe few individuals who really *excel* in drawing, who have learnt ſomething more than the common routine which is uſually learnt from a drawing-maſter, who have acquired an agreeable talent, not for the mere purpoſe of exhibiting themſelves, but for the ſake of the occupation it affords and the pleaſure it may give to their *friends*. We have the pleaſure of knowing ſome who exactly anſwer to this deſcription, and who muſt feel themſelves diſtinct and honourable exceptions to theſe general obſervations.

From whatever cauſe it ariſes, we may obſerve, that after young women are ſettled in life, their taſte for drawing and muſic gradually declines. For this fact we can appeal only to the recollection of individuals. We may hence form ſome eſtimate of the real value which ought to be put upon what are called accompliſhments, *conſidered as occupations*. Hence may we alſo conclude, that parents do not form

their judgments from the facts which they ſee every day in real life; or elſe may we not infer that they deceive themſelves as to their own motives; and that amongſt the reaſons which make them ſo anxious about the accompliſhments of their daughters, there are ſome ſecret motives more powerful than thoſe which are uſually openly acknowledged?

It is admitted in the cabinet council of mothers, that ſome ſhare of the value of accompliſhments depends upon the demand for them in the faſhionable world. "A young lady," they ſay, "is nobody, and nothing, without "accompliſhments; they are as neceſſary to "her as a fortune: they are indeed conſidered "as part of her fortune, and ſometimes are even "found to ſupply the place of it. Next to "beauty, they are the beſt tickets of admiſſion "into ſociety which ſhe can produce; and "every body knows, that on the company ſhe "keeps depends the chance of a young wo-"man's ſettling advantageouſly in the world."

To judge of what will pleaſe and attach men of ſuperior ſenſe and characters——we are

not quite certain that theſe are the men who are to be conſidered firſt when we ſpeak of a young lady's ſettling *advantageouſly* in the world; but we will take this for granted—— to judge of what will pleaſe and attach men of ſuperior ſenſe and characters, we muſt obſerve their actual conduct in life, and liſten to their ſpeculative opinions. Superficial accompliſhments do not appear to be the objects of their preference. In enumerating the perfections of his wife, or in retracing the progreſs of his love, does a man of ſenſe dwell upon his miſtreſs's ſkill in drawing, or dancing, or muſic? No. Theſe he tells you, are extremely agreeable talents, but they could have never attached him; they are ſubordinate parts in her character; he is angry that you can rank them amongſt her perfections; he knows that a thouſand women poſſeſs theſe accompliſhments, who have never touched his heart. He does not perhaps deny, that in Chloe, altogether, they have power to pleaſe, but he does not think them eſſential to her power.

The opinion of women, who have ſeen a

good deal of the world, is worth attending to upon this ſubject; eſpecially if we can obtain it when their paſſions are wholly unintereſted in their deciſion. Whatever may be the judgment of individuals concerning the character and politics of the celebrated Madame Roland, her opinion as a woman of abilities, and as a woman who had ſeen a variety of life, will be thought deſerving of attention. Her book was written at a time when ſhe was in daily expectation of death, when ſhe could have no motive to conceal her real ſentiments upon any ſubject. She gives an account of her employments in priſon; and, amongſt others, mentions muſic and drawing.

"I then employed myſelf in drawing till "dinner time. I had ſo long been out of the "habit of uſing a pencil, that I could not ex- "pect to be very dexterous; but we common- "ly retain the power of repeating with plea- "ſure, or at leaſt of attempting with eaſe, "whatever we have ſucceſsfully practiſed in "our youth. Therefore the ſtudy of the fine "arts, conſidered as a part of female education,

"ſhould be attended to, much leſs with a view "to the acquiſition of ſuperior talents, than "with a deſire to give women a taſte for in- "duſtry, the habit of application, and a "greater variety of employments; for theſe "aſſiſt us to eſcape from *ennui*, the moſt cruel "diſeaſe of civilized ſociety; by theſe we are "preſerved from the dangers of vice, and even "from thoſe ſeductions which are far more "likely to lead us aſtray.

"I would not make my daughter a performer*. "I remember, that my mother was afraid that "I ſhould become a great muſician, or that I "ſhould have devoted myſelf entirely to paint- "ing: ſhe wiſhed that I ſhould, above all other "things, love the duties of my ſex; that I "ſhould be a good œconomiſt, a good miſtreſs, "as well as a good mother of a family. I wiſh "my Eudora to be able to accompany her "voice agreeably on the harp. I wiſh that ſhe "may play agreeably on the piano-forte; that "ſhe may know enough of drawing to feel "pleaſure from the ſight and from the exami-

* Une virtuoſe.

" nation of the fineſt pictures of the great pain-
" ters; that ſhe may be able to draw a flower
" that happens to pleaſe her; and that ſhe may
" unite in her dreſs elegance and ſimplicity.
" I ſhould wiſh that her talents might be ſuch,
" that they ſhould neither excite the admiration
" of others, nor inſpire her with vanity; I ſhould
" wiſh that ſhe ſhould pleaſe by the general effect
" of her whole character, without ever ſtriking
" any body with aſtoniſhment at firſt ſight;
" and that ſhe ſhould attach by her good quali-
" ties, rather than ſhine by her accompliſh-
" ments."

Women cannot foreſee what may be the taſtes of the individuals with whom they are to paſs their lives. Their own taſtes ſhould not therefore be early decided; they ſhould, if poſſible, be ſo educated that they may attain any talent in perfection which they may deſire, or which their circumſtances may render neceſſary. If, for inſtance, a woman were to marry a man who was fond of muſic, or who admired painting, ſhe ſhould be able to cultivate theſe talents for his amuſement and her own. If he be a man

of ſenſe and feeling, he will be more pleaſed with the motive than with the thing that is actually done. But if it be urged, that all women cannot expect to marry men of ſenſe and feeling; and if we are told, that nevertheleſs they muſt look to "an advantageous eſtabliſh-" ment," we muſt conclude, that men of rank and fortune are meant by that comprehenſive phraſe. Another ſet of arguments muſt be uſed to thoſe, who ſpeculate on their daughters accompliſhments in this line. They have, perhaps, ſeen ſome inſtances of what they call ſucceſs; they have ſeen ſome young women of their acquaintance, whoſe accompliſhments have attracted men of fortune ſuperior to their own; conſequently, maternal tenderneſs is awakened, and many mothers are ſanguine in their expectations of the effect of their daughters education. But they forget that every body now makes the ſame reflections, that parents are, and have been for ſome years, ſpeculating in the ſame line; conſequently, the market is likely to be overſtocked, and, of courſe, the value of the commodities muſt fall. Every

young lady (and every young woman is now a young lady) has ſome pretenſions to accompliſhments. She draws a little; or ſhe plays a little; or ſhe ſpeaks French a little. Even the blue-board boarding ſchools, ridiculed by Miſs Alliſcrip in the Heireſs, profeſs to perfect young ladies in ſome or all of theſe neceſſary parts of education. Stop at any good inn on the London roads, and you will probably find that the landlady's daughter can ſhew you ſome of her own framed drawings, can play a tune upon her ſpinnet, or ſupport a dialogue in French of a reaſonable length, in the cuſtomary queſtions and anſwers. Now it is the practice in high life to under-value, and avoid as much as poſſible, every thing which deſcends to the inferior claſſes of ſociety. The dreſs of to-day is unfaſhionable to-morrow, becauſe every body wears it. The dreſs is not preferred becauſe it is pretty or uſeful, but becauſe it is the diſtinction of well-bred people. In the ſame manner accompliſhments have loſt much of that value which they acquired from opinion, ſince they have become common. They are now ſo

common, that they cannot be conſidered as the diſtinguiſhing characteriſtics of even a gentlewoman's education. The higher claſſes in life, and thoſe individuals who aim at diſtinction, now eſtabliſh another ſpecies of monopoly, and ſecure to themſelves a certain ſet of expenſive maſters in muſic, drawing, dancing, &c. They endeavour to believe, and to make others believe, that no one can be well educated without having ſerved an apprenticeſhip of ſo many leſſons under ſome of theſe privileged maſters. But it is in vain that they intrench themſelves, they are purſued by the intruſive vulgar. In a wealthy mercantile nation there is nothing which can be bought for money, that will long continue to be an envied diſtinction. The hope of attaining to that degree of eminence in the fine arts which really deſerves celebrity, becomes every day more difficult to private practitioners, becauſe the number of competitors daily increaſes: and it is the intereſt of maſters to forward their pupils by every poſſible means. Both genius and perſeverence muſt now be united to obtain the prize of diſtinction; and

how ſeldom are they found, or kept together, in the common courſe of education!

Conſidering all theſe circumſtances, is not there ſome reaſon to apprehend, that in a few years the taſte for ſeveral faſhionable appendages of female education may change, and that thoſe will conſequently be treated with neglect who have no other claim to public regard than their proficiency in what may, perhaps, then be thought vulgar or obſolete accompliſhments? Our great grandmothers diſtinguiſhed themſelves by truly ſubſtantial tenſtitch chairs and carpets, by needle work pictures of Solomon and the queen of Sheba. Theſe were admirable in their day, but their day is over; and theſe uſeful, ingenious, and laborious ſpecimens of female talents, are conſigned to the garret, or they are produced but as curioſities, to excite wonder at the ſtrange patience and miſerable deſtiny of former generations: the taſte for tapeſtry and embroidery are thus paſt; the long labours of the loom have ceaſed. Cloth-work, crape-work, chenille-work, ribbon-work, wafer-work, with a

long train of etceteras, have all paſſed away in our own memory; yet theſe conferred much evaneſcent fame, and a proportional quantity of vain emulation. A taſte for drawing, or muſic, cannot be claſſed with any of theſe trifling performances; but there are many faded drawings of the preſent generations, which cannot ſtand in competition with the glowing and faithful colours of the ſilk and worſted of former times; and many of the hours ſpent at a *ſtammering* harpſichord might ſurely, with full as much domeſtic advantage, have been devoted to the embelliſhment of chairs and carpets. We hope that no one will ſo perverſely miſunderſtand us, as to infer from theſe remarks, that we deſire to ſee the revival of old tapeſtry work; or that we condemn the elegant accompliſhments of muſic and drawing. We condemn only the abuſe of theſe accompliſhments; we wiſh that they ſhould be conſidered as domeſtic occupations, not as matters of competition, or of exhibition, nor yet as the means of attracting temporary admiration. We are not afraid that any, who are really conſcious of

having acquired accompliſhments with theſe prudent and honourable views, ſhould miſapprehend what has been ſaid. Mediocrity may, perhaps, attempt to miſrepreſent our remarks, and may endeavour to make it appear that we have attacked, and that we would diſcourage, every effort of female taſte and ingenuity in the fine arts; we cannot therefore be too explicit in diſclaiming ſuch illiberal views.

We have not ſpoken of dancing, though it is one of the moſt admired of female accompliſhments. This evidently is an amuſement, not an occupation; it is an agreeable exerciſe, uſeful to the health, and advantageous, as it confers a certain degree of habitual eaſe and grace. Mr. Locke ſeems to think, that it gives young people confidence in themſelves when they come into company, and that it is therefore expedient to teach children early to dance; but there are ſo many other methods of inſpiring young people with this confidence in themſelves, that it appears unneceſſary to lay much ſtreſs upon this argument. If children live in good company, and ſee conſtantly people with

agreeable manners, they will acquire manners which the dancing-maſter does not always teach; and they will eaſily vary their forms of politeneſs with the faſhion of the day. Nobody comes into a room regularly as their dancing-maſter taught them to make their entrance; we ſhould think a ſtrict adherence to his leſſon ridiculous and awkward in well bred company; therefore much muſt be left to the diſcretion and taſte of the pupil, after the dancing maſter has made his laſt bow. Eaſe of manners is not always attained by thoſe who have been ſtrictly diſciplined by a Veſtris, becauſe the leſſons are not always practiſed in preciſely the ſame circumſtances in which they were learnt: this confuſes and confounds the pupils, and they rather loſe than gain confidence in themſelves, from perceiving that they cannot immediately apply what they have been taught. But we need not expatiate upon this ſubject, becauſe there are few parents of good ſenſe, in any rank of life, who will not perceive that their daughters manners cannot be formed or poliſhed by a dancing maſter. We are not to conſider dancing in a grave and moral light; it is an amuſe-

ment much more agreeable to young people, and much better ſuited to them in every reſpect, than cards, or ſilent aſſemblies of formal viſitors. It promotes cheerfulneſs, and prevents, in ſome meaſure, the habits of goſſiping, and the love of ſcandal. So far we willingly agree with its moſt vivacious advocates, in its common eulogium. But this is not, we fear, ſaying enough. We ſee, or fancy that we ſee, the ſober matron lay down her carefully ſorted cards upon the card table, and with dictatorial ſolemnity ſhe pronounces, "That dancing is ſomething more "than an amuſement; that girls muſt learn to "dance, becauſe they muſt appear well in pub-"lic; becauſe the young ladies who dance the "beſt are uſually moſt *taken notice* of in public; "moſt admired by the other ſex; moſt likely, "in ſhort, not only to have their choice of the "beſt partner in a ball room, but ſometimes of "the beſt partner for life."

With ſubmiſſion to maternal authority, theſe arguments do not ſeem to be juſtified of late years. Girls, who dance remarkably well, are, it is true, admired in a ball room, and followed,

perhaps, by thoſe idle, thoughtleſs young men, who frequent public places merely for want of ſomething elſe to do. This race of beings are not particularly calculated to make good huſbands in any ſenſe of the word; nor are they uſually diſpoſed to think of marriage in any other light than as the laſt deſperate expedient to repair their injured fortunes. They ſet their wits againſt the ſex in general, and conſider themſelves as in danger of being jockeyed into the matrimonial ſtate. Some few, perhaps, who have not brought their imagination ſufficiently under the command of the calculating faculty, are *caught* by beauty and accompliſhments, and marry againſt the common rules of intereſt. Theſe men are conſidered with pity, or with ridicule, by their companions, as dupes who have ſuffered themſelves to be taken in: others are warned by their fate; and the future probability of ſimilar *errors*, of courſe, muſt be diminiſhed. The faſhionable apathy, whether real or affected, with which young men lounge in public places, with ſcarcely the appearance of attention to the fair exhibitors be-

fore them, ſufficiently marks the temper of the times; and if the female ſex have loſt any thing of the reſpect and eſteem which ought to be paid to them in ſociety, they can ſcarcely expect to regain their proper influence by conceſſions to the falſe and vitiated taſte of thoſe who combine to treat them with neglect bordering upon inſolence. If the ſyſtem of female education, if the ſyſtem of female manners, conſpire to ſhew in the fair ſex a degrading anxiety to attract worthleſs admiration, wealthy, or titled homage, is it ſurpriſing that every young man, who has any pretenſions to birth, fortune, or faſhion, ſhould conſider himſelf as the arbiter of their fate, and the deſpotic judge of their merit? Women, who underſtand their real intereſts, perceive the cauſes of the contempt with which the ſex is treated by faſhionable coxcombs, and they feel ſome indignation at the meanneſs with which this contempt, tacitly or openly expreſſed, is endured. Women, who feel none of this indignation, and who, either from their education, or their circumſtances, are ſolicitous to obtain only preſent

amuſement, or what they think the permanent advantages of a fortunate alliance, will yet find themſelves miſtaken by perſiſting in their thoughtleſs career; they will not gain even the objects to which they aſpire. How many accompliſhed belles run the uſual round of diſſipation in all public places of exhibition, tire the public eye, and after a ſeaſon or two fade and are forgotten! How many accompliſhed belles are there, who, having gained the object of their own, or of their mother's ambition, find themſelves doomed to miſery for life! Thoſe unequal marriages, which are ſometimes called *excellent matches*, ſeldom produce much happineſs. And where happineſs is not, what is all the reſt?

If all, or any of theſe reflections ſhould ſtrike the heart, and convince the underſtanding, of an anxious, but reaſonable mother, ſhe will, probably, immediately determine upon her own conduct in the education of her daughters: ſhe will reſolve to avoid the common errors of the frivolous or the intereſted; ſhe will not be influenced by the importunity of every idle ac-

quaintance, who may talk to her of the neceſſity of her daughter's being taken notice of in public, of the chances of an *advantageous* eſtabliſhment, of the good fortune of Miſs Y—— or lady Angelina X——, in meeting with a coxcomb or a ſpendthrift for a huſband; nor will ſhe be moved with maternal emulation when ſhe is further told, that theſe young ladies owed their *ſucceſs* entirely to the ſuperiority of their accompliſhments: ſhe will conſider, for one moment, what is meant by the word ſucceſs; ſhe will, perhaps, not be of opinion that "'tis beſt repenting in a coach and ſix;" ſhe will, perhaps, reflect, that even the "ſoft "ſounds" of titled grandeur loſe their power to pleaſe, and "ſalute the ear" almoſt unobſerved. The happineſs, the permanent happineſs of her child, will be the firſt, the laſt object of the good and the enlightened mother: to this all her views and all her efforts will tend; and to this ſhe will make every faſhionable, every elegant accompliſhment ſubſervient.

As to the means of acquiring theſe accompliſhments, it would be abſurd, and preſump-

tuous, to preſent here any vague precepts, or tedious details, upon the mode of learning drawing, dancing, and muſic. Theſe can be beſt learned from the maſters who profeſs to teach them, as far as the technical part is neceſſary. But ſucceſs will not ultimately depend upon any technical inſtructions that a maſter can give: he may direct the efforts of induſtry ſo as to ſave much uſeleſs labour; he may prevent his pupils from acquiring bad practical habits; he may aſſiſt but he cannot inſpire, the ſpirit of perſeverance. A maſter who is not expected, or indeed allowed, to interfere in the general education of his pupils, can only diligently attend to them whilſt he is giving his leſſons; he has not any power, except that pernicious motive, competition, to excite them to excel; his inſtructions cannot be peculiarly adapted to their tempers or their underſtandings, becauſe with theſe he is unacquainted. Now a ſenſible mother has it in her power to ſupply all theſe deficiencies; even if ſhe does not herſelf excel in any of the accompliſhments which her daughters are learning, her know-

ledge of their minds, her taſte, her judgment, her affection, her ſuperintending intelligence, will be of ineſtimable value to her children. If ſhe has any ſkill in any accompliſhment, ſhe will, for the firſt years of her daughters life, be undoubtedly the beſt perſon to inſtruct them. By ſkill, we do not mean ſuperior talents, or proficiency in muſic or drawing; without theſe ſhe may be able to teach all that is neceſſary in the early part of education. One of the beſt motives which a woman can have to cultivate her talents after ſhe marries, is the hope and belief, that ſhe may be eſſentially ſerviceable in the inſtruction of her family. And that ſhe may be eſſentially ſerviceable, let no falſe humility lead her to doubt. She need not be anxious for the rapid progreſs of her little pupils; ſhe need not be terrified if ſhe ſee their equals in age ſurpaſs them under what ſhe thinks more able tuition; ſhe may ſecurely ſatisfy herſelf, that if ſhe but inſpires her children with a deſire to excel, with the habits of attention and induſtry, they will certainly ſucceed, ſooner or later, in whatever it is de-

ſirable that they ſhould learn. The exact age at which the muſic, dancing, or drawing maſter, ſhould begin their inſtructions need not be fixed. If a mother ſhould not be ſo ſituated as to be able to procure the beſt maſters for her daughters whilſt they are yet children, ſhe need not be in deſpair; a rapid progreſs is made in a ſhort time by well educated young people; thoſe who have not acquired any bad habits are eaſily taught: it therefore ſeems prudent, if the beſt maſters cannot be procured at any given period of education, to wait patiently rather than hazard their firſt impreſſions, and the firſt habits which might be given by any inferior technical inſtruction. It is ſaid, that the celebrated muſician Timotheus, whoſe excellence in his art Alexander the conqueror of the world was forced to acknowledge, had the prudence to demand double *entrance money* from every ſcholar who had had any other muſic maſter.

Beſides the advantage of being entirely free from other bad habits, children who are not taught by inferior maſters, will not contract habits of liſtleſs application. Under the eye of

any indolent perſon children ſeldom give their entire attention to what they are about. They become mere machines, and without uſing their own underſtanding in the leaſt, have recourſe to the convenient maſter upon every occaſion. The utmoſt that children in ſuch circumſtances can learn, is all the technical part of the art which the maſter can teach. When the maſter is at laſt diſmiſſed, and her education completed, the pupil is left both fatigued and helpleſs. "Few have been taught to any purpoſe, "who have not been their own teachers," ſays Sir Joſhua Reynolds. This reflection upon the art of teaching may perhaps be too general; but thoſe perſons, who look back upon their education, will in many reſpects allow it to be juſt. They will perceive that they have been too much taught, and that they have learned every thing which they knew as an art, and nothing as a ſcience. Few people have ſufficient courage to recommence their own education, and for this reaſon few people get beyond a certain point of mediocrity. It is eaſy to them to practiſe the leſſons which they have

learned, if they practiſe them in intellectual darkneſs; but if you let in upon them one ray of philoſophic light, you dazzle and confound them, ſo that they cannot even perform their cuſtomary feats. A young man*, who had been blind from his birth, and learned to draw a croſs, a circle, and a ſquare, with great accuracy; when he was twenty his eyes were couched, and when he could ſee perfectly well, he was deſired to draw his circle and ſquare. His new ſenſe of ſeeing, ſo far from aſſiſting him in this operation, was extremely troubleſome to him; though he took more pains than uſual, he performed very ill: confounded by the new difficulty, he concluded that ſight was uſeleſs in all operations to be performed by the hand, and he thought his eyes would be of no uſe to him in future. How many people find their reaſon as uſeleſs and troubleſome to them as this young man found his eye-ſight!

Whilſt we are learning any mechanical ope-

* V. Storia di quattro fratelli nati ciechi e guariti coll' eſtrazione delle cateratte.

Franceſco Buzzi.

ration, or whilſt we are acquiring any technical art, the mind is commonly paſſive. In the firſt attempts, perhaps, we reaſon or invent ways of abridging our own labour, and the awkwardneſs of the unpractiſed hand is aſſiſted by ingenuity and reflection; but as we improve in manual dexterity, attention and ingenuity are no longer exerted; we go on habitually without thought. Thought would probably interrupt the operation, and break the chain of aſſociated actions. An artificer ſtops his hand the moment you aſk him to explain what he is about: he can work and talk of indifferent objects; but if he reflects upon the manner in which he performs certain ſlight of hand parts of his buſineſs, it is ten to one but he cannot go on with them. A man, who writes a free running hand, goes on without thinking of the manner in which he writes; fix his attention upon the manner in which he holds his pen, or forms his letters, and he probably will not write quite ſo faſt, or ſo well, as uſual. When a girl firſt attempts to dreſs herſelf at a glaſs, the glaſs perplexes, inſtead of aſſiſting her, becauſe

ſhe thinks, and reaſons about every motion; but when by habit ſhe has learned how to move her hands in obedience to the *flügel*-image*, which performs its exerciſe in the mirror, no farther thought is employed. Make the child obſerve that ſhe moves her left hand forward when the image in the glaſs moves in a contrary manner, turn the child's attention to any of her own motions, and ſhe will make miſtakes as ſhe did before her habits were formed.

Many occupations, which are generally ſuppoſed to depend upon the underſtanding, and which do probably depend in the firſt inſtance upon the *underſtanding*, become by practice purely mechanical. This is the caſe in many of the imitative arts. A perſon unuſed to drawing exerts a great deal of attention in copying any new object; but cuſtom ſoon ſupplies the place of thought. By cuſtom†, as a great artiſt aſſures us, he will become able to draw the human figure tolerably well with as little effort

* This word is ſometimes by miſtake ſpelt *fugal*-man.

† Sir Joſhua Reynolds.

of the mind, as to trace with a pen the letters of the alphabet.

We muſt further obſerve, that the habit of purſuing any occupation, which requires no mental exertion, induces an indolence or incapacity of intellect. Mere artiſts are commonly as ſtupid as mere artificers, and theſe are little more than machines.

The length of time which is required to obtain practical ſkill and dexterity in certain accompliſhments is one reaſon, why there are ſo few people who obtain any thing more than mechanical excellence. They become the ſlaves of cuſtom, and they become proud of their ſlavery. At firſt they might have conſidered cuſtom as a tyrant; but when they have obeyed her for a certain time, they do her voluntary homage ever after, as to a ſovereign by divine right. To prevent this ſpecies of intellectual degradation, we muſt in education be careful to rank mere mechanical talents below the exerciſe of the mental powers. Thus the ambition of young people will be directed to high objects; and all inferior qualifications may

be attained without contracting the underſtanding. Praiſe children for patience, for perſeverance, for induſtry; encourage them to reaſon and to invent upon all ſubjects, and you may direct their attention afterwards as you think proper. But if you applaud children merely for drawing a flower neatly, or copying a landſcape, without exciting their ambition to any thing higher, you will never create ſuperior talents, or a ſuperior character. The writing and drawing automaton performs its advertiſed wonders to the ſatisfaction of the ſpectators; but the machine is not "*inſtinct with ſpirit*," you cannot expect from it the deſign, the ſketch of a Raphael, or from its pen the thoughts of a Shakſpeare. It is eaſy to guide the hand, but who can transfuſe a ſoul into the image?

It is not an uncommon thing to hear young people, who have been long under the tuition of maſters, complain of their own want of genius. They are ſenſible that they have not made any great progreſs in any of the accompliſhments, which they have endeavoured to learn; they ſee others, who have not perhaps

had what they call ſuch *opportunities* and *advantages* in their education, ſuddenly ſurpaſs them; this they attribute to natural genius, and they ſay to themſelves in deſpair, "Certainly I have no taſte for drawing, I have no "genius for muſic, I have learned ſo many "years, I have had ſo many leſſons from the "beſt maſters, and yet here is ſuch and ſuch a "one, who has had no maſter, who has taught "herſelf, and perhaps did not begin till late in "life, has got before me, becauſe ſhe has a "natural genius for theſe things. She muſt "have a natural taſte for them, becauſe ſhe "can ſit whole hours at theſe things for her own "pleaſure. Now I never would take a pencil "in my hand for my own choice; and I am "glad, at all events, that the time for leſſons "and maſters is over. My education is finiſhed, for I am of age."

The diſguſt and deſpair, which are thus induced by an injudicious education, abſolutely defeat even its own trivial purpoſes. So that, whatever may be the views of parents, whether they conſider ornamental accompliſhments

as eſſential to their daughter's *ſucceſs* in the world, or whether they value them rather as ſecondary objects, ſubordinate to her happineſs; whether they wiſh their daughter actually to excel in any particular accompliſhment, or to have the power of excelling in any to which circumſtances may direct her, it is in all caſes adviſable to cultivate the general power of the pupil's underſtanding, inſtead of confining her to technical practices and precepts, under the eye of any maſter, who does not poſſeſs that which is the *ſoul* of every art.

We do not mean any illiberal attack upon maſters, but in writing upon education it is neceſſary to examine the utility of different modes of inſtruction, without fear of offending any *claſs* of men. We acknowledge, that it is ſeldom found that thoſe can communicate their knowledge the beſt, *who poſſeſs the moſt*, eſpecially if this knowledge be that of an artiſt or a linguiſt. Before any perſon is properly qualified *to teach*, he muſt have the power of recollecting exactly how *he learned*; he muſt go back ſtep by ſtep to the point at which he

began, and he muſt be able to conduct his pupil through the ſame path without impatience or precipitation. He muſt not only have acquired a knowledge of the proceſs by which his own ideas and habits were formed, but he muſt have extenſive experience of the varieties of the human mind. He muſt not ſuppoſe, that the operations of intellect are carried on preciſely in the ſame manner in all minds; he muſt not imagine, that there is but one method of teaching, which will ſuit all perſons alike. The analogies which ſtrike his own mind, the arrangement of ideas, which to him appears the moſt perſpicuous, to his pupil may appear remote and confuſed. He muſt not attribute this to his pupil's inattention, ſtupidity, or obſtinacy; but he muſt attribute it to the true cauſes; the different aſſociation of ideas in different minds, the different habits of thinking, which ariſe from their various tempers and previous education. He muſt be acquainted with the habits of all tempers; the ſlow, the quick, the inventive, the inveſtigating; and he muſt adapt

his inſtructions accordingly. There is ſomething more, requiſite: a maſter muſt not only know what he profeſſes to teach of his own peculiar art or ſcience, but he ought to know all its bearings and dependences. He muſt be acquainted not only with the local topography of his own diſtrict, but he muſt have the whole map of human knowledge before him; and whilſt he dwells moſt upon his own province, he muſt yet be free from local prejudices, and muſt conſider himſelf as a citizen of the world. Children who ſtudy geography in ſmall ſeparate maps, underſtand, perhaps, the view of each country tolerably well; but we ſee them quite puzzled when they are to connect theſe maps in their idea of the world. They do not know the relative ſize or ſituation of England or France; they cannot find London or Paris when they look for the firſt time upon the globe, and every country ſeems to be turned upſide down in their imagination. Young people who learn particular arts and ſciences from maſters who have confined their view to the boundary of each, without having given an enlarged idea

of the whole, are much in the ſame ſituation with theſe unfortunate geographers.

The perſiſting to teach things ſeparately, which ought to be taught as a whole, muſt prevent the progreſs of mental cultivation*. The diviſion and ſubdiviſion of different parts of education, which are monopolized as trades by the maſters who profeſs to teach them, muſt tend to increaſe and perpetuate error. Theſe intellectual *caſts* are pernicious.

It is ſaid, that the Perſians had maſters to teach their children each ſeparate virtue: one maſter to teach juſtice, another fortitude, another temperance, and ſo on. How theſe maſters could preſerve the boundaries of their ſeveral moral territories, it is not eaſy to imagine, eſpecially if they all inſiſted upon independent ſovereignty. There muſt have been ſome danger, ſurely, of their diſputing with one another concerning the importance of their reſpective profeſſions, like the bourgeois gentilhomme's dancing maſter, muſic maſter, maſter of morality, and maſter of philoſophy, who all fell to

* Condillac.

blows to ſettle their pretenſions, forgetful of the preſence of their pupil. Maſters, who are expected to teach only one thing, may be ſincerely anxious for the improvement of their pupils in that particular, without being in the leaſt intereſted for their general character or happineſs. Thus the drawing maſter has done his part, and is ſatisfied if he teaches his pupil to draw well; it is no concern of his what her temper may be, any more than what ſort of hand ſhe writes, or how ſhe dances. The dancing maſter, in his turn, is wholly indifferent about the young lady's progreſs in drawing; all he undertakes is, to teach her to dance.

We mention theſe circumſtances to ſhew parents, that maſters, even when they do the utmoſt that they engage to do, cannot educate their children; they can only partially inſtruct them in particular arts. Parents muſt themſelves preſide over the education of their children, or muſt entirely give them into the care of ſome perſon of an enlarged and philoſophic mind, who can ſupply all the deficiencies of common maſters, and who can take advantage

of all the poſitive good that can be obtained from exiſting inſtitutions. Such a preceptor or governeſs muſt poſſeſs extenſive knowledge, and that ſuperiority of mind which ſees the juſt proportion and value of every acquiſition, which is not to be overawed by authority, or dazzled by faſhion. Under the eye of ſuch perſons, maſters will keep preciſely their proper places; they will teach all they can teach, without inſtilling abſurd prejudices, or inſpiring a ſpirit of vain rivalſhip; nor will they be ſuffered to continue their leſſons when they have nothing more to teach.

Parents, who do not think that they have leiſure, or feel that they have capacity to take the entire direction of their children's education upon themſelves, will truſt this important office to a governeſs. The inquiry concerning the value of female accompliſhments has been purpoſely entered into before we could ſpeak of the choice of a governeſs, becauſe the eſtimation in which theſe are held will very much determine parents in their choice.

If what has been ſaid of the probability of a

decline in the public taſte for what are uſually called accompliſhments: of their relative utility to the happineſs of families and individuals; of the waſte of time, and waſte of the higher powers of the mind in acquiring them: if what has been obſerved on any of theſe points is allowed to be juſt, we ſhall have little difficulty in purſuing the ſame principles further. In the choice of a governeſs we ſhould not conſider her faſhionable accompliſhments as her beſt recommendations; theſe will be only ſecondary objects. We ſhall examine with more anxiety, whether ſhe poſſeſs a ſound, diſcriminating, and enlarged underſtanding. Whether her mind be free from prejudice; whether ſhe has ſteadineſs of temper to purſue her own plans; and, above all, whether ſhe has that ſpecies of integrity which will juſtify a parent in truſting a child to her care. We ſhall attend to her converſation, and obſerve her manners, with ſcrupulous minuteneſs. Children are *imitative animals*, and they are peculiarly diſpoſed to imitate the language, manners, and geſtures, of thoſe with whom they live, and to

whom they look up with admiration. In female education too much care cannot be taken to form all thoſe habits in morals and in manners, which are diſtinguiſhing characteriſtics of amiable women. Theſe habits muſt be acquired early, or they will never appear eaſy or graceful: they will neceſſarily be formed by thoſe who ſee none but good models.

We have already pointed out the abſolute neceſſity of union amongſt all thoſe who are concerned in a child's education. A governeſs muſt either rule, or obey, decidedly. If ſhe do not agree with the child's parents in opinion, ſhe muſt either know how to convince them by argument, or ſhe muſt with ſtrict integrity conform her practice to their theories. There are few parents, who will chooſe to give up the entire care of their children to any governeſs; therefore there will probably be ſome points in which a difference of opinion will ariſe. A ſenſible woman will never ſubmit to be treated, as governeſſes are in ſome families, like the ſervant who was aſked by his maſter what buſineſs he had to think; nor will a woman of ſenſe

or temper infiſt upon her opinions without producing her reaſons. She will thus enſure the reſpect and the confidence of enlightened parents.

It is the intereſt of parents to treat the perſon who educates their children with that perfect equality and kindneſs, which will conciliate her affection, and which will at the ſame time preſerve her influence and authority over her pupils. And it is with pleaſure we obſerve, that the ſtyle of behaviour to governeſſes, in well-bred families, is much changed within theſe few years. A governeſs is no longer treated as an upper ſervant, or as an intermediate being between a ſervant and a gentlewoman: ſhe is now treated as the friend and companion of the family, and ſhe muſt, conſequently, have warm and permanent intereſt it its proſperity: ſhe becomes attached to her pupils from gratitude to their parents, from ſympathy, from generoſity, as well as from the ſtrict ſenſe of duty.

In faſhionable life there is, however, ſome danger, that parents ſhould go into extremes in their behaviour towards their governeſſes.

Thoſe who diſdain the idea of aſſuming ſuperiority of rank and fortune, and who deſire to treat the perſon who educates their children as their equal, act with perfect propriety; but if they make her their companion in all their amuſements they go a ſtep too far, and they defeat their own purpoſes. If a governeſs attends the card table, and the aſſembly-room; if ſhe is to viſit, and be viſited, what is to become of her pupils in her abſence? They muſt be left to the care of ſervants. There are ſome ladies who will not accept of any invitation, in in which the governeſs of their children is not included. This may be done from a good motive, but, ſurely, it is unreaſonable; for the very uſe of a governeſs is to ſupply the mother's place in her abſence. Cannot this be managed better? Cannot the mother and governeſs amuſe themſelves at different times? There would then be perfect equality; the governeſs would be in the ſame ſociety, and would be treated with the ſame reſpect, without neglecting her duty. The reward which is given to women of abilities, and of unblemiſhed reputa-

tion, who devote themſelves to the ſuperintendence of the education of young ladies in the higher ranks of life, the daughters of our affluent nobility, ought to be conſiderably greater than what it is at preſent: it ought to be ſuch as to excite women to cultivate their talents, and their underſtandings, with a view to this profeſſion. A profeſſion we call it, for it ſhould be conſidered as ſuch, as an honourable profeſſion, which a gentlewoman might follow without loſing any degree of the eſtimation in which ſhe is held by what is called *the world.* There is no employment, at preſent, by which a gentlewoman can maintain herſelf without loſing ſomething of that reſpect, ſomething of that rank in ſociety, which neither female fortitude nor male philoſophy willingly foregoes. The liberal profeſſions are open to men of ſmall fortunes; by preſenting one ſimilar reſource to women, we ſhould give a ſtrong motive for their moral and intellectual improvement.

Nor does it ſeem probable, that they ſhould make a diſgraceful or imprudent uſe of their increaſing influence and liberty in this caſe, be-

cauſe their previous education muſt previouſly prepare them properly. The misfortune of women has uſually been, to have power truſted to them before they were educated to uſe it prudently. To ſay that preceptreſſes in the higher ranks of life ſhould be liberally rewarded, is but a vague expreſſion; ſomething ſpecific ſhould be mentioned, wherever general utility is the object. Let us obſerve; that many of the firſt dignities of the church are beſtowed, and properly beſtowed, upon men who have educated the higheſt ranks of our nobility. Thoſe who look with an evil eye upon theſe promotions do not fairly eſtimate the *national* importance of education for the rich and powerful. No proviſion can be made for women, who direct the education of the daughters of our nobility, anyways equivalent to the proviſion made for preceptors by thoſe who have influence in the ſtate. A pecuniary compenſation is in the power of opulent families. Three hundred a year, for twelve or fourteen years, the ſpace of time which a preceptreſs muſt probably employ in the education of a young lady,

would be a ſuitable compenſation for her care. With this proviſion ſhe would be enabled, after her pupil's education was completed, either to ſettle in a family of her own, or ſhe would in the decline of life be happily independent, ſecure from the temptation of marrying for money. If a few munificent and enlightened individuals ſet the example of liberally rewarding merit in this ſituation, many young women will probably appear with talents and good qualities ſuited to the views of the moſt ſanguine parents. With good ſenſe, and literary taſtes, a young woman might inſtruct herſelf during the firſt years of her pupil's childhood, and might gradually prepare herſelf with all the neceſſary knowledge; according to the principles that have been ſuggeſted, there would be no neceſſity for her being a *miſtreſs of arts*, a performer in muſic, a paintreſs, a linguiſt, or a poeteſs. A general knowledge of literature is indiſpenſable; and yet farther, ſhe muſt have ſufficient taſte and judgment to direct the literary talents of her pupils.

With reſpect to the literary education of the

female ſex, the arguments on both ſides of the queſtion have already been ſtated, with all the impartiality in our power, in another place*: without obtruding a detail of the ſame arguments again upon the public, it will be ſufficient to profeſs the diſtinct opinion, which a longer conſideration of the ſubject has yet more fully confirmed. That it will tend to the happineſs of ſociety in general, that women ſhould have their underſtandings cultivated and enlarged as much as poſſible; that the happineſs of domeſtic life, the virtues and the powers of pleaſing in the female ſex, the yet more deſirable power of attaching thoſe worthy of their love and eſteem, will be increaſed by the judicious cultivation of the female underſtanding, more than by all that modern gallantry or ancient chivalry could deviſe in favour of the ſex. Much prudence and ability are requiſite to conduct properly a young woman's literary education. Her imagination muſt not be raiſed above the taſte for neceſſary occupations, or the numerous ſmall, but not trifling pleaſures of domeſtic

* Letters for Literary Ladies, ſecond edition.

life: her mind muſt be enlarged, yet the delicacy of her manners muſt be preſerved: her knowledge muſt be various, and her powers of reaſoning unawed by authority; yet ſhe muſt *habitually* feel that nice ſenſe of propriety, which is at once the guard and the charm of every feminine virtue. By early caution, unremitting, ſcrupulous caution in the choice of the books which are put into the hands of girls, a mother, or a preceptreſs, may fully occupy, and entertain their pupils, and excite in their minds a *taſte* for propriety, as well as a taſte for literature. It cannot be neceſſary to add more than this general idea, that a mother ought to be anſwerable to her daughter's huſband for the books her daughter reads, as well as for the company ſhe keeps.

Thoſe obſervations, which apply equally to the cultivation of the underſtanding both of men and of women, we do not here mean to point out; we would ſpeak only of what may be peculiar to female education. From the ſtudy of the learned languages women by cuſtom, fortunately for them, are exempted: of ancient

literature they may in tranſlations which are acknowledged to be excellent, obtain a ſufficient knowledge, without paying too much time and labour for this claſſic pleaſure. Confuſed notions from faſhionable publications, from periodical papers, and comedies, have made their way into common converſation, and thence have aſſumed an appearance of authority, and have been extremely diſadvantageous to female education. Sentiment and ridicule have conſpired to repreſent reaſon, knowledge, and ſcience, as unſuitable or dangerous to women; yet at the ſame time wit, and ſuperficial acquirements in literature, have been the object of admiration in ſociety; ſo that this dangerous inference has been drawn almoſt without our perceiving its fallacy, that ſuperficial knowledge is more deſirable in women than accurate knowledge. This principle muſt lead to innumerable errors; it muſt produce continual contradictions in the courſe of education: inſtead of making women more reaſonable, and leſs preſuming, it will render them at once arrogant and ignorant; full of pretenſions, inca-

pable of application, and unfit to hear themſelves convinced. Whatever young women learn, let them be taught accurately; let them know ever ſo little apparently, they will know much if they have learnt that little *well*. A girl who runs through a courſe of natural hiſtory, hears ſomething about chemiſtry, has been taught ſomething of botany, and who knows but juſt enough of theſe to make her fancy that ſhe is well informed, is in a miſerable ſituation, in danger of becoming ridiculous, and inſupportably tireſome to men of ſenſe and ſcience. But let a woman know any one thing completely, and ſhe will have ſufficient underſtanding to learn more, and to apply what ſhe has been taught ſo as to intereſt men of generoſity and genius in her favour. The knowledge of the general principles of any ſcience is very different from ſuperficial knowledge of the ſcience; perhaps, from not attending to this diſtinction, or from not underſtanding it, many have failed in female education. Some attempt will be made to mark this diſtinction practically, when we come to ſpeak of the cultivation of the me-

mory, invention, and judgment. No intelligent preceptreſs will, it is hoped, find any difficulty in the application of the obſervations they may meet with in the chapters on imagination, ſympathy and ſenſibility, vanity, and temper. The maſculine pronoun *he*, has been uſed for grammatical convenience, not at all becauſe we agree with the prejudiced, and uncourteous grammarian, who aſſerts "that the maſculine is the "more worthy gender."

CHAPTER XXI.

MEMORY AND INVENTION.

BEFORE we beſtow many years of time and pains upon any object, it may be prudent to afford a few minutes previouſly to aſcertain its preciſe value. Many perſons have a vague idea of the great value of memory, and, without analyſing their opinion, they reſolve to cultivate the memories of their children, as much, and as ſoon as poſſible. So far from having determined the value of this talent, we ſhall find that it will be difficult to give a popular definition of a good memory. Some people call that a good memory which retains the greateſt number of ideas for the longeſt time. Others prefer

a recollective, to a retentive memory, and value not ſo much the number, as the ſelection of facts; not ſo much the maſs, or even the antiquity, of accumulated treaſure, as the power of producing current ſpecie for immediate uſe. Memory is ſometimes ſpoken of as if it were a faculty admirable in itſelf, without any union with the other powers of the mind. Amongſt thoſe who allow that memory has no independent claim to regard, there are yet many who believe, that a ſuperior degree of it is eſſential to the ſucceſsful exerciſe of the higher faculties, ſuch as judgment and invention. The degree in which it is uſeful to thoſe powers, has not however been determined. Thoſe who are governed in their opinions by precedent and authority can produce many learned names, to prove that memory was held in the higheſt eſtimation amongſt the great men of antiquity; it was cultivated with much anxiety in their public inſtitutions, and in their private education. But there were many circumſtances, which formerly contributed to make a great memory eſſential to a great man. In civil and military employments, amongſt the ancients, it was in

a high degree requiſite. Generals were expected to know by heart the names of the ſoldiers in their armies; demagogues, who hoped to pleaſe the people, were expected to know the names of all their fellow citizens*. Orators, who did not ſpeak extempore, were obliged to get their long orations by rote. Thoſe who ſtudied ſcience or philoſophy were obliged to cultivate their memory with inceſſant care, becauſe, if they frequented the ſchools for inſtruction, they treaſured up the ſayings of the maſters of different ſects, and learned their doctrines only by oral inſtruction. Manuſcripts were frequently got by heart by thoſe who were eager to ſecure the knowledge they contained, and who had not opportunities of recurring to the originals. It is not ſurpriſing, therefore, that memory, to which ſo much was truſted, ſhould have been held in ſuch high eſteem.

At the revival of literature in Europe, before the diſcovery of the art of printing, it was ſcarcely poſſible to make any progreſs in the literature of the age, without poſſeſſing a retentive memory. A man who had read a few

* V. Plutarch. Quintilian.

manuſcripts, and could repeat them, was a wonder, and a treaſure: he could travel from place to place, and live by his learning; he was a circulating library to a nation, and the more books he could carry in his head the better; he was certain of an admiring audience if he could repeat what Ariſtotle or Saint Jerome had written; and he had far more encouragement to engrave the words of others on his memory, than to invent or judge for himſelf.

In the twelfth century above ſix hundred ſcholars aſſembled in the foreſts of Champagne, to hear the lectures of the learned Abeillard; they made themſelves huts of the boughs of trees, and in this new academic grove were ſatisfied to go almoſt without the neceſſaries of life. In the ſpecimens of Abeillard's compoſition, which are handed down to us, we may diſcover proofs of his having been vain of a ſurpriſing memory; it ſeems to have been the ſuperior faculty of his mind: his ſix hundred pupils could carry away with them only ſo much of his learning as they could get by heart during his courſe of lectures; and he who had

the beſt memory muſt have been beſt paid for his journey*.

The art of printing, by multiplying copies ſo as to put them within the eaſy reference of all claſſes of people, has lowered the value of this ſpecies of retentive memory. It is better to refer to the book itſelf, than to the man who has read the book. Knowledge is now ready claſſed for uſe, and it is ſafely ſtored up in the great common-place books of public libraries. A man of literature need not encumber his memory with whole paſſages from the authors he wants to quote; he need only mark down the page, and the words are ſafe.

Mere erudition does not in theſe days enſure permanent fame. The names of the Abbé de Longuerue, and of the Florentine librarian Magliabechi, excite no vivid emotions in the minds of thoſe who have heard of them before; and there are many, perhaps not illiterate perſons, who would not be aſhamed to own that they had never heard of them at all. Yet theſe

* Berington's Hiſtory of the Lives of Abeillard and Heloiſa, p. 173.

men were both of them, but a few years ago, remarkable for extraordinary memory and erudition. When M. de Longuerue was a child, he was ſuch a prodigy of memory and knowledge, that Lewis the Fourteenth, paſſing through the Abbé's province, ſtopped to ſee and hear him. When he grew up, Paris conſulted him as the oracle of learning. His erudition, ſays d'Alembert*, was not only prodigious, but actually terrible. Greek and Hebrew were more familiar to him than his native tongue. His memory was ſo well furniſhed with hiſtoric facts, with chronological and typographical knowledge, that upon hearing a perſon aſſert in converſation, that it would be a difficult taſk to write a good hiſtorical deſcription of France †; he aſſerted that he could do it from memory, without conſulting any books. All he aſked was, to have ſome maps of France laid before him: theſe recalled to his mind the hiſtory of each province, of all the fiefs of the crown of each city, and even of each diſtinguiſhed noble-

* Eloge de M. L'Abbé d'Alary.

† Marquis d'Argenſon's Eſſays, page 385.

man's ſeat in the kingdom. He wrote his folio hiſtory in a year. It was admired as a great curioſity in manuſcript; but when it came to be printed, ſundry groſs errors appeared: he was obliged to take out ſeveral leaves in correcting the preſs. The edition was very expenſive, and the work, at laſt, would have been rather more acceptable to the public, if the author had not written it from memory. Love of the wonderful muſt yield to eſteem for the uſeful.

The effect which all this erudition had upon the Abbé de Longuerue's taſte, judgment, and imagination, is worthy of our attention. Some of his opinions ſpeak ſufficiently for our purpoſe. He was of opinion that the Engliſh have never done any good*, ſince they renounced the ſtudy of Greek and Arabic, for Geometry and Phyſics. He was of opinion, that two antiquarian books upon Homer, viz. *Antiquitates Homericæ* and *Homeri Gnomologia*, are preferable to Homer himſelf. He would rather have them, he declared, becauſe

* D'Alembert's Eloge de M. d'Alary.

with theſe he had all that was uſeful in the poet, without being obliged to go through long ſtories, which put him to ſleep. "As for that "madman Arioſto," ſaid he, "I ſometimes "divert myſelf with him." One odd volume of Racine was the only French book to be found in his library. His erudition died with him, and the world has not profited much by his ſurpriſing memory.

The librarian Magliabechi was no leſs famous than M. de Languerue for his memory; and he was yet more ſtrongly affected by the mania for books. His appetite for them was ſo voracious, that he acquired the name of the glutton of literature*. Before he died he had *ſwallowed* ſix large rooms full of books. Whether he had time to digeſt any of them we do not know, but we are ſure that he wiſhed to have done ſo; for the only line of his own compoſition, which he has left for the inſtruction of poſterity, is round a medal. The medal repreſents him ſitting with a book in his hand, and with a great number of books ſcattered on the

* Curioſities of Literature, vol. ii. page 145.

floor round him. The candid inſcription ſignifies, that to become learned it is not ſufficient to read much, if we read without reflection. The names of Franklin and of Shakſpeare are known wherever literature is cultivated, to all who have any pretenſions to ſcience or to genius; yet they were neither of them men of extraordinary erudition, nor from their works ſhould we judge that memory was their predominant faculty. It may be ſaid, that a ſuperior degree of memory was eſſential to the exerciſe of their judgment and invention; that without having treaſured up in his memory a variety of minute obſervations upon human nature, Shakſpeare could never have painted the paſſions with ſo bold and juſt a hand, that if Franklin had not accurately remembered his own philoſophical obſervations, and thoſe of others, he never would have made thoſe diſcoveries which have immortalized his name. Admitting the juſtice of theſe aſſertions, we ſee that memory to great men is but a ſubordinate ſervant, a treaſurer who receives, and is expected to keep faithfully whatever is com-

mitted to his care; and not only to preſerve faithfully all depoſits, but to produce them at the moment they are wanted. There are ſubſtances which are ſaid to imbibe and retain the rays of light, and to emit them only in certain ſituations. As long as they retain the rays, no eye regards them.

It has often been obſerved, that a recollective and retentive memory are ſeldom found united. If this were true, and that we had our choice of either, which ſhould we prefer? For the purpoſes of oſtentation, perhaps the one; for utility the other. A perſon who could repeat from beginning to end the whole Economy of Human Life, which he had learned in his childhood, might, if we had time to ſit ſtill and liſten to him, obtain our admiration for his extraordinarily retentive memory; but the perſon who, in daily occurrences or intereſting affairs, recollects at the proper time what is uſeful to us, obtains from our gratitude ſomething more than vain admiration. To ſpeak accurately, we muſt remark, that retentive and recollective memories are but relative terms;

the recollective memory muſt be retentive of all that it recollects; the retentive memory cannot ſhew itſelf till the moment it becomes recollective. But we value either preciſely in proportion as they are uſeful and agreeable.

Juſt at the time when philoſophers were intent upon trying experiments in electricity, Dr. Heberden recollected to have ſeen, many years before, a ſmall electrical ſtone called tourmalin*, in the poſſeſſion of Dr. Sharpe at Cambridge. It was the only one known in England at that time. Dr. Heberden procured it; and ſeveral curious experiments were made and verified with it. In this inſtance it is obvious, that we admire the retentive local memory of Dr. Heberden, merely becauſe it became recollective and uſeful. Had the tourmalin never been wanted, it would have been a matter of indifference, whether the direction for it at Dr. Sharpe's at Cambridge had been remembered or forgotten. There was a man † who under-

* Prieſtley on Electricity, page 317.

† Fuller, author of the Worthies of England. See Curioſities of Literature, vol. i.

took in going from Temple Bar to the fartheſt part of Cheapſide and back again, to enumerate at his return every ſign on each ſide of the way in its order, and to repeat them, if it ſhould be required, either backwards or forwards. This he exactly accompliſhed. As a playful trial of memory, this affords us a moment's entertainment; but if we were to be ſerious upon the ſubject, we ſhould ſay it was a pity that the man did not uſe his extraordinary memory for ſome better purpoſe. The late king of Pruſſia, when he intended to advance Trenck in the army, upon his firſt introduction gave him a liſt of the ſtrangeſt names which could be picked out, to learn by rote. Trenck learned them quickly, and the king was much pleaſed with this inſtance of his memory; but Frederick would certainly never have made ſuch a trial of the abilities of Voltaire.

We cannot always foreſee what facts may be uſeful, and what may be uſeleſs to us, otherwiſe the cultivation of the memory might be conducted by unerring rules. In the common buſineſs of life people regulate their memories by

the circumſtances in which they happen to be placed. A clerk in a counting houſe by practice learns to remember the circumſtances, affairs, and names of numerous merchants, of his maſter's cuſtomers, the places of their abode, and perhaps, ſomething of their peculiar humours and manners. A fine lady remembers her viſiting liſt, and perhaps the dreſſes and partners of every couple at a crowded ball; ſhe finds all theſe particulars a uſeful ſupply for daily converſation, ſhe therefore remembers them with care. An amateur, who is ambitious to ſhine in the ſociety of literary men, collects literary anecdotes, and retails them whenever occaſion permits. Men of ſenſe, who cultivate their memories for uſeful purpoſes, are not obliged to treaſure up heterogeneous facts: by reducing particulars to general principles, and by connecting them with proper aſſociations, they enjoy all the real advantages, whilſt they are exempt from the labour of accumulation.

Mr. Stewart has with ſo much ability pointed out the effects of ſyſtematic arrangement, of

writing, reading, and the uſe of technical contrivances in the cultivation of the memory, that it would be a preſumptuous and unneceſſary attempt to expatiate in other words upon the ſame ſubject. It may not be uſeleſs, however, to repeat a few of his obſervations, becauſe in conſidering what farther improvement may be made, it is always eſſential to have fully in our view what is already known.

Philoſophic arrangement aſſiſts the memory by claſſing, under a few general principles, a number of apparently diſſimilar and unconnected particulars. The habit, for inſtance, of attending to the connexion of cauſe and effect, preſents a multitude of intereſting analogies to the minds of men of ſcience, which eſcape other perſons; the vulgar feel no pleaſure in contemplating objects that appear remote from common life; and they find it extremely difficult to remember obſervations and reaſonings, which are foreign to their cuſtomary courſe of aſſociated ideas. Even literary and ingenious people, when they begin to learn any art or ſcience, uſually complain that their memory is not able

to retain all the terms and ideas which pour in upon them with perplexing rapidity. In time this difficulty is conquered, not ſo much by the ſtrength of the memory as by the exerciſe of judgment: they learn to diſtinguiſh, and ſelect the material terms, facts, and arguments, from thoſe that are ſubordinate, and they claſs them under general heads, to relieve the memory from all ſuperfluous labour.

In all ſtudies there is ſome prevalent aſſociating principle, which gradually becomes familiar to our minds, but which we do not immediately diſcover in our firſt attempts. In poetry, reſemblance; in philoſophy, cauſe and effect; in mathematics, demonſtrations continually recur; and, therefore, each is expected by perſons who have been uſed to theſe reſpective ſtudies.

The habit of committing our knowledge to writing aſſiſts the memory, becauſe in writing we detain certain ideas long enough in our view to perceive all their relations; we uſe fixed and abbreviated ſigns for all our thoughts, with the aſſiſtance of theſe we can prevent confuſion

in our reaſonings. We can without fatigue, by the help of words, letters, figures, or algebraic ſigns, go through a variety of mental proceſſes, and ſolve many difficult problems, which, without ſuch aſſiſtance, muſt have been too extenſive for our capacities.

If our books be well choſen, and if we read with diſcrimination and attention, reading will improve the memory, becauſe as it increaſes our knowledge, it increaſes our intereſt in every new diſcovery, and in every new combination of ideas.

We agree entirely with Mr. Stewart in his obſervations upon technical helps to the memory; they are hurtful to the underſtanding, becauſe they break the general habits of philoſophic order in the mind. There is no connexion of ideas between the memorial lines, for inſtance, in Grey's Memoria Technica, the hiſtory of the Kings, or Emperors, and the dates that we wiſh to remember. However it may be advantageous in education to uſe ſuch contrivances, to aſſiſt our pupils in remembering

thoſe technical parts of knowledge, which are ſometimes valued above their worth in ſociety.

The facts upon which the principles of any ſcience are founded ſhould never be learnt by rote in a technical manner. But the names and the dates of the reigns of a number of kings and emperors, if they muſt be remembered by children, ſhould be learnt in the manner which may give them the leaſt trouble.*

It is commonly aſſerted that our memory is to be improved by exerciſe: exerciſe may be of different kinds, and we muſt determine what ſort is beſt. Repetition is found to fix words, and ſometimes ideas, ſtrongly in the mind: the words of the burthen of a ſong, which we have frequently heard, are eaſily and long remembered. When we want to get any thing by rote, we repeat it over and over again, till the ſounds ſeem to follow one another habitually, and then we ſay we have them perfectly by rote †. The regular recurrence of ſounds, at ſtated intervals, much aids us. In poetry the

* V. Chapter on Books, and on Geography.

† Dr. Darwin. Zoonomia.

rhymes, the cadence, the alliteration, the peculiar ſtructure or the poet's lines, aſſiſt us. All theſe are mechanical helps to the memory. To ſome people repetition ſeems much more agreeable than to others; but it may be doubted whether a facility and propenſity to repetition be favourable to rational memory. Whilſt we repeat, we exclude all thought from the mind, we form a habit of ſaying certain ſounds in a certain order; but if this habit be afterwards broken by any trifling external circumſtances, we loſe all our labour. We have no means of recollecting what we have learned in this manner. Once gone it is gone for ever. It depends but upon one principle of aſſociation. Thoſe who exert ingenuity as well as memory in learning by heart, may not perhaps aſſociate ſounds with ſo much expedition, but they will have the power of recollection in a greater degree, they will have more chances in their favour, beſides the great power of voluntary exertion: a power which few paſſive repeaters ever poſſeſs. The following lines are eaſily learned.

"Haſte, then, ye ſpirits; to your charge repair,
"The fluttering fan be Zephyretta's care;

"The drops to thee, Brillante, we conſign,
"And, Momentilla, let the watch be thine;
"Do thou, Criſpiſſa, tend her favourite lock,
"Ariel himſelf ſhall be the guard of Shock."

To a perſon who merely learned the ſounds in theſe lines by rote, without knowing the ſenſe of the words, all the advantage of the appropriated names and offices of the ſylphs would be loſt. No one, who has any ſenſe of propriety, can call theſe ſylphs by wrong names, or put them out of their places. Momentilla and the watch, Zephyretta and the fan, Criſpiſſa and the lock of hair, Brillante and the diamond drops, are ſo intimately aſſociated, that they neceſſarily recur together in the memory. The following celebrated lines on envy, ſome people will find eaſy, and others difficult to learn by heart.

"Envy will merit, as its ſhade, purſue;
"But, like a ſhadow, proves the ſubſtance true:
"For envy'd wit, like Sol eclips'd, makes known
"Th' oppoſing body's groſſneſs not its own.
"When firſt that ſun too pow'rful beams diſplays,
"It draws up vapour, which obſcures its rays;
"But ev'n thoſe clouds at laſt adorn its way,
"Reflect new glories, and augment the day."

The flow of theſe lines is not particularly eaſy; thoſe who truſt merely to the power of reiteration in getting them by rote will find the taſk difficult; thoſe who ſeize the ideas will neceſſarily recollect their order, and the ſenſe will conduct them to their proper places with certainty: they cannot, for inſtance, make the clouds adorn the ſun's rays before the ſun's powerful beams have drawn up the vapours. This fixes the place of the four laſt lines. The ſimile of merit and the ſun, and envy and the clouds, keeps each idea in its order; if any one eſcapes, it is eaſily miſſed, and eaſily recalled.

We ſeldom meet with thoſe who can give us an accurate account of their own thoughts; it is, therefore, difficult to tell the different ways in which different people manage their memory. We judge by the effects frequently, that cauſes are the ſame, which ſometimes are entirely different. Thus, we, in common converſation, ſhould ſay, that two people had an equally good memory, who could repeat with equal exactneſs any thing which they had heard or read. But in their methods of remember-

ing theſe perſons might differ eſſentially; the one might have exerted much more judgment and ingenuity in the conduct of his memory than the other, and might thus have not only fatigued himſelf leſs, but might have improved his underſtanding, whilſt the other learned merely by rote. When Dr. Johnſon reported the parliamentary debates for the Gentleman's Magazine, his judgment, his habit of attending to the order in which ideas follow one another in reaſoning, his previous knowledge of the characters and ſtyle of the different ſpeakers, muſt conſiderably have aſſiſted his memory. His taſte for literary compoſition muſt have ſhewn him inſtantly where any argument or alluſion was miſplaced. A connecting phraſe, or a link in a chain of reaſoning, is miſſed as readily, by a perſon uſed to writing and argument, as a word in a line of poetry is miſſed by a poetic ear. If any thing has eſcaped the memory of perſons who remember by general claſſification, they are not only by their art able to diſcover that ſomething is miſſing, but they have a general direction where to find it; they know to

what claſs of ideas it muſt belong; they can hunt from generals to particulars, till they are ſure at laſt of tracing and detecting the deſerter; they have certain ſigns by which they know the object of which they are in ſearch, and they truſt with more certainty to theſe characteriſtics, than to the mere vague recollection of having ſeen it before. We feel diſpoſed to truſt the memory of thoſe who can give us ſome reaſon for what they remember. If they can prove to us that their aſſertion could not, conſiſtently with other facts, be falſe, we admit the aſſertion into the rank of facts, and their judgment thus goes ſurety for their memory.

In the common mode of education great exactneſs of repetition is required from pupils. This ſeems to be made a matter of too much importance. There are circumſtances in life, in which this talent is uſeful, but its utility perhaps we ſhall find, upon examination, is overrated.

In giving evidence of words, dates, and facts, in a court of juſtice, the utmoſt preciſion is requiſite. The property, lives, and characters, of individuals, depend upon this preciſion.

But we muſt obſerve, that after long detailed evidence has been given by a number of witneſſes, an advocate ſeparates the material from the immaterial circumſtances, and the judge in his charge again compreſſes the arguments of the counſel, ſo that much of what has been ſaid during the trial might as well have been omitted. All theſe ſuperfluous ideas were *remembered* to no purpoſe. An evidence ſometimes, if he be permitted, would tell not only all that he remembers of the circumſtances about which he is examined, but alſo a number of other circumſtances, which are caſually aſſociated with theſe in his memory. An able advocate rejects, by a quickneſs of judgment which appears like intuition, all that is irrelevant to his argument and his cauſe; and it is by this ſelection that *his* memory, in the evidence perhaps of twenty different people, is able to retain all that is uſeful. When this heterogeneous maſs of evidence is claſſed by his perſpicuous arrangement, his audience feel no difficulty either in underſtanding or recollecting all which had before appeared confuſed. Thus the exerciſe of the judgment ſaves much of the labour of

memory; labour which is not merely unneceſſary, but hurtful, to our underſtanding.

In making obſervations upon ſubjects which are new to us, we muſt be content to uſe our memory unaſſiſted at firſt by our reaſon; we muſt treaſure up the ore and rubbiſh together, becauſe we cannot immediately diſtinguiſh them from each other. But the ſooner we can ſeparate them the better. In the beginning of all experimental ſciences, a number of uſeleſs particulars are recorded, becauſe they are not known to be uſeleſs; when from comparing theſe a few general principles are diſcovered, the memory is immediately relieved, the judgment and inventive faculty have power and liberty to work, and then a rapid progreſs and great diſcoveries are made. It is the misfortune of thoſe who firſt cultivate new ſciences, that their memory is overloaded; but if thoſe who ſucceed to them ſubmit to the ſame ſenſeleſs drudgery, it is not their misfortune, but their fault. Let us look over the hiſtory of thoſe who have made diſcoveries and inventions, we ſhall perceive, that it has been by

rejecting uſeleſs ideas that they have firſt cleared their way to truth. Dr. Prieſtley's Hiſtories of Viſion and of Electricity are as uſeful when we conſider them as hiſtories of the human mind, as when we read them as hiſtories of ſcience. Dr. P. has publiſhed a catalogue of books*, from which he gathered his materials. The pains, he tells us, that it coſt him to compreſs and abridge the accounts which ingenious men have given of their own experiments, teach us how much our progreſs in real knowledge depends upon rejecting all that is ſuperfluous. When Simonides offered to teach Themiſtocles the art of memory, Themiſtocles anſwered, "Rather teach me the art of forget-"ting; for I find that I remember much that "I had better forget, and forget" *(conſequently)* "ſome things which I wiſh to remember."

When any diſcovery or invention is completed, we are frequently aſtoniſhed at its obvious ſimplicity. The ideas neceſſary to the diſcovery are ſeldom ſo numerous as to fatigue our memory. Memory ſeems to have been uſeful to

* At the end of the hiſtory of Viſion.

inventors only as it preſented a few ideas in a certain happy connexion, as it preſented them faithfully and diſtinctly to view in the proper moment. If we wiſh for examples of the *conduct* of the underſtanding, we need only look into Dr. Franklin's works. He is ſo free from all affectation, he lays his mind ſo fairly before us, that he is perhaps the beſt example we can ſelect. Thoſe who are uſed to look at objects in a microſcope ſay, that full as much depends upon the objects being well prepared for inſpection, as upon the attention of the obſerver, or the excellence of the glaſs.

The firſt thing that ſtrikes us, in looking over Doctor Franklin's works, is the variety of his obſervations upon different ſubjects. We might imagine, that a very tenacious and powerful memory was neceſſary to regiſter all theſe: but Dr. Franklin informs us, that it was his conſtant practice to note down every hint as it occurred to him: he urges his friends to do the ſame; he obſerves, that there is ſcarcely a day paſſes without our hearing or ſeeing ſomething which, if properly attended to, might lead to uſeful

diſcoveries. By thus committing his ideas to writing, his mind was left at liberty *to think*. No extraordinary effort of memory was, even upon the greateſt occaſions, requiſite. A friend wrote to him to inquire how he was led to his great diſcovery of the identity of lightning and electricity; and how he firſt came to think of drawing down lightning from the clouds. Dr. Franklin replies, that he could not anſwer better than by giving an extract from the minutes he uſed to keep of the experiments he made, with memorandums of ſuch as he purpoſed to make, the reaſons for making them, and the obſervations that roſe upon them. By this extract, ſays Dr. Franklin, you will ſee that the thought was not ſo much *an out of the way one*, but that it might have occurred to any electrician*.

* "Nov. 7, 1749. Electrical fluid agrees with light-
"ning in theſe particulars. 1. Giving light. 2. Colour
"of the light. 3. Crooked direction. 4. Swift motion.
"5. Being conducted by metals. 6. Crack or noiſe in
"exploding. 7. Subſiſting in water or ice. 8. Rending
"bodies it paſſes through. 9. Deſtroying animals, 10.
"Melting metals. 11. Firing inflammable ſubſtances.

When the ideas are arranged in clear order, as we ſee them in this note, the analogy or induction to which Dr. Franklin was led appears eaſy. Why then had it never been made by any other perſon? Numbers of ingenious men were at this time intent upon electricity. The ideas which were neceſſary to this diſcovery were not numerous or complicated. We may remark, that one analogy connecting theſe obſervations together, they are more eaſily recollected; and their being written down for a particular purpoſe, on which Dr. Franklin's mind was intent, muſt have made it ſtill eaſier to him to retain them.

The degree of memory he was forced to employ is thus reduced to a portion in which few people are defective. Now, let us ſuppoſe, that Dr. Franklin, at the time he wrote his me-

"12. Sulphurous ſmell. The electric fluid is attracted "by points. We do not know whether this property is "in lightning. But ſince they agree in all the particulars "wherein we can already compare them, is it not proba- "bable, they agree likewiſe in this? Let the experi- "ment be made."

Dr. Franklin's Letters, page 322.

morandum, had fully in his recollection every previous experiment that had ever been tried on electricity; and not only these, but the theories, names, ages, and private history, of all the men who had tried these experiments; of what advantage would this have been to him? He must have excluded all these impertinent ideas successively as they rose before him, and he must have selected the fifteen useful observations, which we have mentioned, from this troublesome multitude. The chance in such a selection would have been against him; the time employed in the examination and rejection of all the unnecessary recollections would have been absolutely wasted.

We must wish that it were in our power, when we make observations upon nature, or when we read the reflections of others, to arrange our thoughts so as to be ready when we want to reason or invent. When cards are dealt to us, we can sort our hand according to the known probabilities of the game, and a new arrangement is easily made when we hear what is trumps.

In collecting and ſorting obſervations Dr. Franklin particularly excelled, therefore we may ſafely continue to take him for our example. Wherever he happened to be, in a boat, in a mine, in a printer's ſhop, in a crowded city or in the country, in Europe or America, he diſplays the ſame activity of obſervation. When any thing, however trifling, ſtruck him which he could not account for, he never reſted till he had traced the effect to its cauſe. Thus, after having made one remark, he had freſh motive to collect facts, either to confirm or refute an hypotheſis; his obſervations tending conſequently to ſome determinate purpoſe, they were arranged in the moment they were made in the moſt commodious manner, both for his memory and invention; they were arranged either according to their obvious analogies, or their relation to each other as cauſe and effect. He had two uſeful methods of judging of the value of his own ideas; he either conſidered how they could be immediately applied to practical improvements in

the arts, or how they could lead to the ſolution of any of the great problems in ſcience. Here we muſt again obſerve, that judgment ſaved the labour of memory. A perſon, who ſets about to collect facts at random, is little better than a magpie, who picks up and lays by any odd bits of money he can light upon without knowing their uſe.

Miſcellaneous obſervations which are made by thoſe who have no philoſophy may accidentally lead to ſomething uſeful; but here we admire the good fortune, and not the genius, of the individuals who make ſuch diſcoveries: theſe are prizes drawn from the lottery of ſcience, which ought not to ſeduce us from the paths of ſober induſtry. How long may an obſervation fortunately made continue to be uſeleſs to mankind, merely becauſe it has not been reaſoned upon! The trifling obſervation, that a ſtraight ſtick appears bent in water, was made many hundred years before the reaſon of that appearance was diſcovered! The invention of the teleſcope might have been made by any

perſon who could have purſued this ſlight obſervation through all its conſequences.

Having now defined, or rather deſcribed, what we mean by *a good memory*, we may conſider how the memory ſhould be cultivated. In children, as well as in men, the ſtrength of that habit, or perhaps of that power of the mind which aſſociates ideas together, varies conſiderably. It is probable, that this difference may depend ſometimes upon organization. A child who is born with any defect in his eyes; cannot poſſibly have the ſame pleaſure in objects of ſight, which thoſe enjoy who have ſtrong eyes: ideas aſſociated with theſe external objects are therefore not aſſociated with pleaſure, and, conſequently, they are not recollected with any ſenſations of pleaſure. An ingenious writer * ſuppoſes, that all the difference of capacity amongſt men ultimately depends on their original power of feeling pleaſure or pain, and their conſequent different habits of attention.

When there is any defect in a child's organization, we muſt have recourſe to phyſics, and

* Helvetius, "Sur l'Eſprit."

not to metaphyſics; but even amongſt children, who are apparently in the full poſſeſſion of all their ſenſes, we ſee very different degrees of vivacity: thoſe who have moſt vivacity ſeldom take delight in repeating their ideas; they are more pleaſed with novelty than prone to habit. Thoſe on the contrary who are deficient in vivacity are much diſpoſed to the eaſy indolent pleaſure of repetition; it coſts them leſs exertion to ſay or do the ſame thing over again, than to attempt any thing new; they are uniformly good ſubjects to habit, becauſe novelty has no charms to ſeduce their attention.

The education of the memory in theſe two claſſes of children ought not to be the ſame. Thoſe who are diſpoſed to repetition ſhould not be indulged in it, becauſe it will increaſe their indolence; they ſhould be excited by praiſe, by example, by ſympathy, and by all the ſtrongeſt motives that we can employ. Their intereſt in every thing around them muſt by all means be increaſed: when they ſhow eagerneſs about any thing, no matter what it is, we may then exerciſe their memory upon that ſubject with ſome

hopes of ſucceſs. It is of importance that they ſhould ſucceed in their firſt trials, otherwiſe they will be diſcouraged from repeating their attempts, and they will diſtruſt their own memory in future. The fear of not remembering will occupy, and agitate and weaken their minds; they ſhould, therefore, be animated by hope: If they fail, at all events, let them not be reproached; the mortification they naturally feel is ſufficient: nor ſhould they be left to dwell upon their diſappointment; they ſhould have a freſh and eaſier trial given to them, that they may recover their own ſelf-complacency as expeditiouſly as poſſible. It may be ſaid, that there are children of ſuch a ſluggiſh temperament, that they feel no pleaſure in ſucceſs, and no mortification in perceiving their own mental deficiencies. There are few children of this deſcription, ſcarcely any, perhaps, whoſe defects have not been increaſed by education. Exertion has been made ſo painful to them, that at length they have ſunk into apathy, or ſubmitted in deſpair to the eternal puniſhment of ſhame.

The miſtaken notion, that the memory muſt be exercifed only in books, has been often fatal to the pupils of literary people. We remember beſt thoſe things which intereſt us moſt; which are uſeful to us in converſation; in our daily buſineſs or amuſement. So do children. On theſe things we ſhould exerciſe their memory. Tell a boy who has loſt his top, to remember at ſuch a particular time to put you in mind of it, and if he does, that you will give him another; he will probably remember your requeſts after this, better than you will yourſelf. Affectionate children will eaſily extend their recollective memories in the ſervice of their friends and companions. "Put me in "mind to give your friend what he aſked for, "and I will give it to him if you remember it "at the right time." It will be beſt to manage theſe affairs ſo that convenience, and not caprice, ſhall appear to be your motive for the requeſts. The time and place ſhould be preciſely fixed, and ſomething ſhould be choſen which is likely to recall your requeſt at the appointed time. If you ſay, put me in mind of

ſuch a thing the moment the cloth is taken away after dinner; or as ſoon as candles are brought into the room; or when I go by ſuch a ſhop in our walk this evening; here are things mentioned which will much aſſiſt the young remembrancer: the moment the cloth is taken away, or the candles come, he will recollect, from aſſociation, that ſomething is to be done, that *he* has ſomething to do; and preſently he will make out what that ſomething is.

A good memory for buſineſs depends upon local, well-arranged aſſociations. The man of buſineſs makes an artificial memory for himſelf out of the trivial occurrences of the day, and the hours as they paſs recall their reſpective occupations. Children can acquire theſe habits very early in their education; they are eager to give their companions an account of any thing they have ſeen or heard; their tutors ſhould become their companions, and encourage them by ſympathy to addreſs theſe narrations to them. Children who forget their leſſons in chronology, and their pence tables, can relate

with perfect accuracy any circumſtances which have intereſted themſelves. This ſhews that there is no deficiency in their capacity. Every one, who has had any experience of the pleaſure of talking, knows how intimately it is connected with the pleaſure of being liſtened to. The auditors, conſequently, poſſeſs ſupreme power over narrative childhood, without uſing any artifice, by ſimply ſhewing attention to well arranged, and well recollected narratives, and ceaſing to attend when the young orator's memory and ſtory become confuſed, he will naturally be excited to arrange his ideas. The order of *time* is the firſt and eaſieſt principle of aſſociation to help the memory. This, till young people acquire the ideas of cauſe and effect, will be their favourite mode of arrangement. Things that happen at the ſame time; things that are ſaid, thoughts that have occurred, at the ſame time, will recur to the mind together. We may obſerve, that ill educated people continue through life to remember things by this ſingle aſſociation; and conſequently, there is an heterogeneous collection of ideas in their

mind, which have no rational connexion with each other; crowds which have accidentally met, and are forced to live for ever together.

A vulgar evidence, when he is examined about his memory of a particular fact, gives as a reaſon for his remembering it a relation of a number of other circumſtances, which he tells you happened at the ſame time; or he calls to witneſs any animate or inanimate objects, which he happened to ſee at the ſame time. All theſe things are ſo joined with the principal fact in his mind, that his remembering them diſtinctly, ſeems to him, and he expects will ſeem to others, demonſtration of the truth and accuracy of his principal aſſertion. When a lawyer tells him he has nothing to do with theſe ideas, he is immediately at a ſtand in his narrative, he can recollect nothing, he is ſure of nothing; he has no reaſon to give for his belief, unleſs he may ſay that it was Michaelmas-day when ſuch a thing happened, that he had a gooſe for dinner that day, or that he had a new wig. Thoſe who have more enlarged minds, ſeldom produce theſe ſtrange reaſons for remembering

facts. Indeed, no one can reason clearly, whose memory has these foolish habits; the ill matched ideas are inseparably joined, and they imagine there is some natural connexion between them. Hence arise those obstinate prejudices, which no arguments can vanquish.

To prevent children from arguing ill, we must, therefore, take care, in exercising their memory, to discourage them in this method of proving, that they remember one thing by telling us a number of others which happened at the same time; rather let them be excited to bring their reasoning faculty into play in support of their memory. Suppose, for instance, that a child has mislaid his hat, and was trying to recollect where he had put it. He first may recollect, from the association of time, that he had the hat the last time he went out; but when he wants to recollect when that time was, he had better go back, if he can, to his motive for going out: this one idea will bring a number of others in right order into his mind. He went out, suppose, to fetch his kite, which he was afraid would be wetted by a shower of

rain; then the boy recollects that his hat muſt have been wetted by the ſame rain, and that when he came in, inſtead of hanging it up in its uſual place, it was put before the fire to be dried. What fire is the next queſtion, &c.

Such an inſtance as this may appear very trivial; but children whoſe minds are well managed about trifles, will retain good habits when they are to think about matters of conſequence. By exerciſing the memory in this manner about things, inſtead of about books and leſſons, we ſhall not diſguſt and tire our pupils, nor ſhall we give the falſe notion, that all knowledge is acquired by reading.

Long before children read fluently for their own amuſement, they like to hear others read aloud to them, becauſe they have then the entertainment without the labour. We may exerciſe their memory by aſking for an account of what they have heard. But let them never be required to repeat in the words of the book, or even to preſerve the ſame arrangement; let them ſpeak in words of their own, and arrange their ideas to their own plan; this will

exercise at once their judgment, invention, and memory.

"Try if you can explain to me what I have "just been explaining to you," a sensible tutor will frequently say to his pupils; and he will suffer them to explain in a different manner from himself, he will only require them to remember what is essential to the explanation. In such repetitions as these the mind is active, therefore it will strengthen and improve.

Children are all, more or less, pleased with the perception of resemblances and of analogy. This propensity assists us much in the cultivation of the memory; but it must be managed with discretion, or it will injure the other powers of the understanding. There is in some minds a futile love of tracing analogies, which leads to superstition, to false reasoning, and false taste. The quick perception of resemblances is in other minds productive of wit, poetic genius, and scientific invention. The difference between these two classes depends upon this, the one has more judgment, and

more the habit of uſing it than the other. Children who are pleaſed by trifling coincidences, by alluſions, and ſimilitudes, ſhould be taught with great care to reaſon; when once they perceive the pleaſure of demonſtration, they will not be contented with the inaccuracy of common analogies. A tutor is often tempted to teach pupils who are fond of alluſions by means of them, becauſe he finds that they remember well whatever ſuits their taſte for reſemblances. By following the real analogies between different arts and ſciences, and making uſe of the knowledge children have on one ſubject to illuſtrate another, we may at once amuſe their fancy, and cultivate their memory with advantage. Ideas laid up in this manner will recur in the ſame order, and will be ready for further uſe. When two ideas are remembered by their mutual connexion, ſurely it is beſt that they ſhould both of them be ſubſtantially uſeful; and not that one ſhould attend merely to anſwer for the appearance of the other.

As men readily remember thoſe things which are every day uſeful to them in buſineſs, what

relates to their amuſements, or to their favourite taſtes in arts, ſciences, or in literature; ſo children find no difficulty in remembering every thing which mixes daily with their little pleaſures. They value knowledge, which is *uſeful* and *agreeable* to them, as highly as we do; but they conſider only the preſent, and we take the future into our eſtimate. Children feel no intereſt in half the things that are committed, with the moſt ſolemn recommendations, to the care of their memory. It is in vain to tell them, "You muſt remember *ſuch a thing*, becauſe it "will be uſeful to you when you grow up to "be a man." The child feels like a child, and has no idea of what he may feel when he grows up to be a man. He tries to remember what he is deſired, perhaps, becauſe he wiſhes to pleaſe his wiſer friends; but if the ideas are remote from his every day buſineſs, if nothing recall them but voluntary exertion, and if he be obliged to abſtract his little ſoul from every thing it holds dear before he can recollect his leſſons, they will have no hold upon his memory; he will feel that recollection is too ope-

roſe, and he will enjoy none of the " pleaſures " of memory."

To induce children to exerciſe their memory we muſt put them in ſituations where they may be immediately rewarded for their exertion. We muſt create an intereſt in their minds; nothing unintereſting is long remembered. In a large and literary family, it will not be difficult to invent occupations for children, which may exerciſe all their faculties. Even the converſation of ſuch a family will create in their minds a deſire for knowledge; what they hear will recall to their memory what they read, and if they are encouraged to take a reaſonable ſhare in converſation, they will acquire the habit of liſtening to every thing that others ſay. By permitting children to talk freely of what they read, we are more likely to improve their memory for books, than by exacting from them formal repetitions of leſſons.

Dr. Johnſon, who is ſaid to have had an uncommonly good memory, tells us, that when he was a boy, he uſed, after he had acquired any freſh knowledge from his books, to run and tell it to an old woman of whom he was

very fond. This exercise was so agreeable to him, that it imprinted what he read upon his memory.

La Gaucherie, one of the preceptors of Henry IV, having found that he had to do with a young prince of an impatient mind, and active genius, little suited to sedentary studies, instead of compelling his pupil to read, taught him by means of conversation; anecdotes of heroes and the wise sayings of ancient philosophers were thus imprinted upon the mind of this prince. It is said, that Henry IV. applied in his subsequent life all the knowledge he had acquired in this manner so happily, that learned men were surprised at his memory*.

By these observations we by no means would insinuate, that application to books is unnecessary. We are sensible that accurate knowledge upon any subject cannot be acquired by superficial conversation, that it can be obtained only by patient application. But we mean to point out, that an early taste for literature may be excited in children by conversation, and that

* See Preface to L'Esprit des Romains considéré.

their memory ſhould be firſt cultivated in the manner which will give them the leaſt pain. When there is motive for application, and when habits of induſtry have been gradually acquired, we may ſecurely truſt, that our pupils will complete their own education. Nor ſhould we have reaſon to fear, that thoſe who have a good memory for all other things, ſhould not be able to retain all that is worth remembering in books. Children ſhould never be praiſed for merely remembering exactly what they read, they ſhould be praiſed for ſelecting with good ſenſe what is worth their attention, and for applying what they remember to uſeful purpoſes.

We have obſerved how much the habit of inventing increaſes the wiſh for knowledge, and increaſes the intereſt men take in a number of ideas, which are indifferent to uncultivated and indolent people. It is the ſame with children. Children who invent exerciſe their memory with pleaſure, from the immediate ſenſe of utility and ſucceſs. A piece of knowledge, which they lay by in their minds with the hopes of making uſe of it in ſome future invention,

they have more motives for remembering, than what they merely learn by rote, becauſe they are commanded to do ſo by the voice of authority.

A recollective memory of books appears early in children who are not overwhelmed with them; if the impreſſions made upon their minds be diſtinct, they will recur with pleaſure to the memory when ſimilar ideas are preſented.

July 1796. S—— heard his father read Sir Brook Boothby's excellent epitaph upon Algernon Sidney; the following lines pleaſed the boy particularly:

"Approach, contemplate this immortal name,
"Swear on this ſhrine to emulate his fame;
"To dare, like him, e'en to thy lateſt breath,
"Contemning chains, and poverty, and death."

S——'s father aſked him why he liked theſe lines, and whether they put him in mind of any thing that he had heard before. S—— ſaid, "It puts me in mind of Hamilcar's making his "ſon Hannibal ſwear to hate the Romans, and "love his countrymen eternally. But I like

" *this* much better. I think it was exceedingly " fooliſh and wrong of Hamilcar to make his " ſon ſwear always to hate the Romans."

Latin leſſons are uſually ſo very diſagreeable to boys, that they ſeldom are pleaſed with any alluſions to them; but by good management in a tutor, even theſe leſſons may be aſſociated with agreeable ideas. Boys ſhould be encouraged to talk and think about what they learn in Latin, as well as what they read in Engliſh; they ſhould be allowed to judge of the characters deſcribed in ancient authors, to compare them with our preſent ideas of excellence, and thus to make ſome uſe of their learning. It will then be not merely engraved upon their memory in the form of leſſons, it will be mingled with their notions of life and manners; it will occur to them when they converſe, and when they act; they will poſſeſs the admired talent for claſſical alluſion, as well as all the ſolid advantages of an unprejudiced judgment. It is not enough that gentlemen ſhould be maſters of the learned languages, they muſt know how to produce their knowledge without pe-

dantry or affectation. The memory may in vain be ſtored with claſſical precedents, unleſs theſe can be brought into uſe in ſpeaking or writing without the parade of dull citation, or formal introduction. "Sir," ſaid Dr. Johnſon, to ſome proſing tormentor, "I would rather a man "would knock me down than begin to talk to "me of the Punic wars." A public ſpeaker, who riſes in the Houſe of Commons, with pedantry prepenſe to quote Latin or Greek, is coughed or laughed down; but the beautiful unpremeditated claſſical alluſions of Burke or Sheridan, ſometimes conveyed in a ſingle word, ſeize the imagination irreſiſtibly.

Since we perceive, that memory is chiefly uſeful as it furniſhes materials for invention, and that invention can greatly abridge the mere labour of accumulation, we muſt examine how the inventive faculty can be properly exerciſed. The vague precept, of cultivating the memory and invention of young people at the ſame time, will not inform parents how this is to be accompliſhed; we truſt therefore, that we may be permitted, contrary to the cuſ-

tom of didactic writers, to illuſtrate a general precept by a few examples; and we take theſe examples from real life, becauſe we apprehend, that fictions, however ingenious, will never advance the ſcience of education ſo much as ſimple experiments.

No elaborate theory of invention ſhall here alarm parents. It is a miſtake, to ſuppoſe that the inventive faculty can be employed only on important ſubjects, it can be exerciſed in the moſt trifling circumſtances of domeſtic life. Scarcely any family can be ſo unfortunately ſituated, that they may not employ the ingenuity of their children without violent exertion, or any grand apparatus. Let us only make uſe of the circumſtances which happen every hour. Children are intereſted in every thing that is going forward. Building, or planting, or converſation, or reading; they attend to every thing, and from every thing might they, with a little aſſiſtance, obtain inſtruction. Let their uſeful curioſity be encouraged; let them make a part of the general ſociety of the family, inſtead of being treated as if they had neither

ſenſes nor underſtanding. When any thing is to be done, let them be aſked to invent the beſt way of doing it. When they ſee that their invention becomes immediately uſeful, they will take pleaſure in exerting themſelves.

June 4th. 1796. A lady, who had been ruling pencil lines for a conſiderable time, complained of its being a tireſome operation; and ſhe wiſhed that a quick and eaſy way of doing it could be invented. Somebody preſent ſaid they had ſeen pens for ruling muſic books, which ruled four lines at a time; and it was aſked, whether a leaden rake could not be made to rule a ſheet of paper at once.

Mr. —— ſaid, that he thought ſuch a pencil would not rule well; and he called to S—, (the ſame boy we mentioned before) and aſked him if he could invent any method of doing the buſineſs better. S—— took about a quarter of an hour to conſider; and he then deſcribed a little machine for ruling a ſheet of paper at a ſingle ſtroke, which his father executed for him. It ſucceeded well, and this ſucceſs was the beſt reward he could have.

Another day Mr. —— obſerved, that the maid, whoſe buſineſs it was to empty a bucket of aſhes into an aſh hole, never could be perſuaded to do it, becauſe the aſhes were blown againſt her face by the wind; and he determined to invent a method which ſhould make it convenient to her to do as ſhe was deſired. The maid uſually threw the aſhes into a heap on the ſheltered ſide of a wall; the thing to be done was, to make her put the bucket through a hole in this wall, and empty the aſhes on the other ſide. This problem was given to all the children and grown up perſons in the family. One of the children invented the ſhelf, which, they ſaid, ſhould be like part of the vane of a winnowing machine which they had lately ſeen; the manner of placing this vane another of the children ſuggeſted: both theſe ideas joined together produced the contrivance which was wanted.

A little model was made in wood of this bucket, which was a pretty toy. The thing itſelf was executed, and was found uſeful. (V. Plate 1.)

June 8th. 1796. Mr. ——— was balancing a pair of ſcales very exactly, in which he was going to weigh ſome opium; this led to a converſation upon ſcales and weighing. Some one ſaid, that the dealers in diamonds muſt have very exact ſcales, as the difference of a grain makes ſuch a great difference in their value. S—— was very attentive to this converſation. M—— told him, that jewellers always, if they can, buy diamonds when the air is light, and ſell them when it is heavy. S—— did not underſtand the reaſon of this, till his father explained to him the general principles of hydroſtatics, and ſhewed him a few experiments with bodies of different ſpecific gravity: theſe experiments were diſtinctly underſtood by every body preſent. The boy then obſerved, that it was not fair of the jewellers to buy and ſell in this manner; they ſhould not, ſaid he, uſe *theſe* weights. Diamonds ſhould be the weights. Diamonds ſhould be weighed againſt diamonds.

November 1795. One day after dinner, the candles had been left for ſome time with-

out being ſnuffed; and Mr. ——— ſaid he wiſhed candles could be made which would not require ſnuffing.

Mrs. ********* thought of cutting the wick into ſeveral pieces before it was put into the candle, that ſo, when it burned down to the diviſions, the wick might fall off. M——, thought that the wick might be tied tight round at intervals, before it was put into the candle; that when it burned down to the places where it was tied, it would ſnap off; but Mr. ——— objected, that the candle would moſt likely go out when it had burned down to her knots. It was then propoſed, to ſend a ſtream of oxygene through the candle inſtead of a wick. M—— aſked if ſome ſubſtance might not be uſed for wicks which ſhould burn into powder and fly off or ſublime. Mr. ——— ſmiled at this, and ſaid, "*Some ſubſtance*; ſome *kind of* "*air*; ſome *chemical mixture!* A perſon igno- "rant of chemiſtry always talks of, as an igno- "rant perſon in mechanics always ſays, "Oh, "you can do it ſomehow with *a ſpring*."

As the company could not immediately diſ-

cover any way of making candles which ſhould not require to be ſnuffed, they proceeded to invent ways of putting out a candle at a certain time without hands. The younger part of the company had hopes of ſolving this problem, and every eye was attentively fixed upon the candle.

"How would you put it out S—— ?" ſaid Mr. ———. S—— ſaid, that if a weight, a very little lighter than the extinguiſher, were tied to a ſtring, and if the ſtring were put over a pulley, and if *the* extinguiſher were tied to the other end of the ſtring, and the candle put exactly under the extinguiſher; the extinguiſher would move very, very gently down, and at laſt put out the candle.

Mr. ——— obſerved, that whilſt it was putting out the candle there would be a diſagreeable ſmell, becauſe the extinguiſher would be a conſiderable time moving *very, very gently down* over the candle after the candle had begun to go out.

C—— (a girl of twelve years old) ſpoke next. "I would tie an extinguiſher to one

"end of a thread. I would put this ſtring "through a pulley faſtened to the ceiling; the "other end of this ſtring ſhould be faſtened to "the middle of another thread, which ſhould "be ſtrained between two poſts ſet upright on "each ſide of the candle, ſo as that the latter "ſtring may lean againſt the candle at any diſ-"tance *you want* below the flame. When the "candle burns down to this ſtring, it will burn "it in two, and the extinguiſher will drop "upon the candle."

This is the exact deſcription of *the weaver's alarm*, mentioned in the Philoſophical Tranſactions, which C—— had never ſeen or heard of.

Mr. —— now ſhowed us the patent extinguiſher, which was much approved of by all the rival inventors.

It is very uſeful to give children problems which have already been ſolved, becauſe they can immediately compare their own imperfect ideas with ſucceſsful inventions, which have actually been brought into real uſe. We know beforehand what ideas are neceſſary to complete the invention, and whether the pupil has all the neceſſary knowledge. Though by the cour-

teſy of poetry, a creative power is aſcribed to inventive genius, yet we muſt be convinced, that no genius can invent without materials. Nothing can come of nothing. Invention is the new combination of materials. We muſt judge in general of the eaſe or difficulty of any invention, either by the number of ideas neceſſary to be combined, or by the diſſimilárity or analogy of thoſe ideas. In giving any problem to children, we ſhould not only conſider whether they know all that is neceſſary upon the ſubject, but alſo, whether that knowledge is ſufficiently *familiar* to their minds, whether circumſtances are likely to recall it, and whether they have a perfectly clear idea of the thing to be done. By conſidering all theſe particulars, we may pretty nearly proportion our queſtions to the capacity of the pupil; and we may lead his mind on ſtep by ſtep from obvious to intricate inventions.

July 30th. 1796. L——, who was juſt returned from Edinburgh, and had taken down in two large volumes Dr. Black's lectures, uſed to read to us part of them, for about a quarter of an hour, every morning after breakfaſt. He

was frequently interrupted (which interruptions he bore with heroic patience) by Mr. ——'s explanations and comments. When he came to the expanſive power of ſteam, and to the deſcription of the different ſteam engines which have been invented, Mr. —— ſtopped to aſk B, C——, and S, to deſcribe the ſteam engine in their own words. They all deſcribed it in ſuch manner as to ſhew, that they clearly underſtood the principle of the machine. Only the general principle had been explained to them. L——, after having read the deſcription of Savary's and Newcomen's ſteam engines, was beginning to read the deſcription of that invented by Mr. Watt; but Mr. — ſtopped him, that he might try whether any perſon preſent could invent it. Mr. E— thus ſtated the difficulty. "In the old ſteam engine cold water, you know, "is thrown into the cylinder to condenſe the "ſteam; but in condenſing the ſteam the cold "water at the ſame time cools the cylinder. "Now the cylinder muſt be heated again be- "fore it can be filled with ſteam; for till it is "heated it will condenſe the ſteam. There is,

"conſequently, a great waſte of heat and fuel.
"How can you condenſe the ſteam without
"cooling the cylinder?"

S——. "Let down a cold tin tube into the
"cylinder when you want to condenſe the ſteam,
"and draw it up again as ſoon as the ſteam is
"condenſed; or, if you could, put a *cylinder*
"of ice up the great tube."

Some of the company aſked, if an horizontal plate of cold metal, made to ſlide up the inſide of the cylinder, would condenſe the ſteam. The edges of the plate only would touch the cylinder; the ſurface of the plate might condenſe the ſteam.

"But," ſaid Mr. E——, "how can you in-
"troduce and withdraw it?"

C—— (a girl of 12) then ſaid, "I would
"put a cold veſſel to condenſe the ſteam at the
"top of the cylinder."

Mr. E——. "So as to touch the cylinder,
"do you mean?"

C——. "No, not ſo as to touch the cylin-
"der, but at ſome diſtance from it."

Mr. E——. "Then the cold air would ruſh

" into the cylinder whilſt the ſteam was paſſing " from the cylinder to your condenſer."

C——. " But I would cover in the cold " veſſel, and I would cover in the paſſage to " it."

Mr. E——. " I have the pleaſure of in- " forming you, that you have reinvented part " of the great Mr. Watt's improvement on the " ſteam engine. You ſee how it facilitates in- " vention, to begin by ſtating the difficulty " clearly to the mind. This is what every prac- " tical inventor does when he invents in me- " chanics."

To the good natured reader we need offer no apology, to the ill natured we dare attempt none, for introducing theſe detailed views of the firſt attempts of young invention. They are not exhibited as models, either to do honour to the tutor or his pupils; but ſimply to ſhew, how the mind may be led from the eaſieſt ſteps, to what are ſuppoſed to be difficult in education. By imagining ourſelves to be in the ſame ſituation with children, we may gueſs what things are difficult to them; and if we can re-

collect the courſe of our own minds in acquiring knowledge, or in inventing, we may by retracing the ſame ſteps inſtruct others. The order that is frequently followed by authors, in the diviſion and ſubdiviſion of their elementary treatiſes, is not always the beſt for thoſe who are to learn. Such authors are uſually more intent upon proving to the learned that they underſtand their ſubject, than upon communicating their knowledge to the ignorant. Parents and tutors muſt, therefore, ſupply familiar oral inſtruction, and thoſe ſimple, but eſſential explanations, which books diſdain, or neglect to give. And there is this advantage in all inſtruction given in converſation, that it can be made intereſting by a thouſand little circumſtances, which are below the dignity of didactic writers. Gradually we may proceed from ſimple to more complicated contrivances. The invention of experiments to determine a theory, or to aſcertain the truth of an aſſertion, muſt be particularly uſeful to the underſtanding. Any perſon, who has attended to experiments in chemiſtry and natural philoſophy,

muſt know that invention can be as fully and elegantly diſplayed upon theſe ſubjects as upon any in the fine arts or literature. There is one great advantage in ſcientific invention, it is not dependent upon capricious taſte for its reward. The beauty and elegance of a poem may be diſputed by a thouſand amateurs; there can be but one opinion about the truth of a diſcovery in ſcience.

Independently of all ambition, there is conſiderable pleaſure in the purſuit of experimental knowledge. Children, before they are yet fools to fame, enjoy this ſubſtantial pleaſure. Nor are we to ſuppoſe that children have not capacities for ſuch purſuits: they are peculiarly ſuited to their capacity. They love to ſee experiments tried and to try them. They ſhew this diſpoſition not only wherever they are encouraged, but wherever they are permitted to ſhew it: and if we compare their method of reaſoning with the reaſonings of the learned, we ſhall ſometimes be ſurpriſed. They have no prejudices, therefore they have the complete uſe of all their ſenſes; they have few ideas,

but thoſe few are diſtinct; they can be analyſed and compared with eaſe; children, therefore, judge and invent better *in proportion to their knowledge* than moſt grown up people.

Doctor Hooke obſerves, that a ſenſible man, in ſolving any philoſophical problem, ſhould always lean to that ſide which is oppoſite to his favourite taſte. A chemiſt is diſpoſed to account for every thing by chemical means; a geometrician is inclined to ſolve every problem geometrically; and a mechanic accounts for all the phænomena of nature by the laws of mechaniſm. This undue bias upon the minds of ingenious people has frequently rendered their talents leſs uſeful to mankind. It is the duty of thoſe who educate ingenious children, to guard againſt this ſpecies of ſcientific inſanity.

There are prejudices of another deſcription, which are fatal to inventive genius; ſome of theſe are uſually found to attend ignorance, and others ſometimes adhere to the learned. Ignorant people, if they poſſeſs any degree of invention, are ſo confident in their own abilities, that they will not take the pains to inquire

what others have thought or done; they diſdain all general principles, and will rather ſcramble through ſome bye path of their own ſtriking out, than condeſcend to be ſhewn the beſt road by the moſt enlightened guide. For this reaſon ſelf-taught geniuſes, as they are called, ſeldom go beyond a certain point in their own education, and the praiſe we beſtow upon their ingenuity is always accompanied with expreſſions of regret: "It is a pity that "ſuch a genius had not the advantages of a "good education."

The learned on the contrary, who have been bred up in reverence for eſtabliſhed opinions, and who have felt in many inſtances the advantage of general principles, are apt to adhere too pertinaciouſly to their theories, and hence they neglect or deſpiſe new obſervations. How long did the maxim, that nature abhors a vacuum, content the learned! And how many diſcoveries were retarded by this ſingle falſe principle! For a great number of years it was affirmed and believed, that all objects were ſeen by the intervention of viſual rays, proceed-

ing from the eye much in the ſame manner as we feel any object at a diſtance from us by the help of a ſtick*. Whilſt this abſurd analogy ſatisfied the mind, no diſcoveries were made in viſion, none were attempted. A prepoſſeſſion often miſleads the induſtry of active genius. Doctor Hooke, in ſpite of the ridicule which he met with, was firm in his belief, that mankind would diſcover ſome method of ſailing in the air. Balloons have juſtified his prediction; but all his own induſtry in trying experiments upon flying was waſted, becauſe he perſiſted in following a falſe analogy to the wings of birds. He made wings of various ſorts; ſtill he took it for granted that he *muſt* learn to fly by mechanical means: had he applied to chemiſtry he might have ſucceeded. It is curious to obſerve, how nearly he once touched upon the diſcovery, and yet, miſled by his prepoſſeſſion, quitted his hold. He obſerved, that the air cells† of fiſhes are filled with air which buoys them up in the water, and he ſuppoſes that this air is

* Prieſtley on Viſion, vol. i. page 23.

† V. Hooke's Poſthumous Works.

lighter than *common* air. Had he purſued this idea, he might have invented balloons: but he returned with fatal perſeverance to his old theory of wings. From ſuch facts we may learn the power and danger of prejudice in the moſt ingenious minds, and we ſhall be careful to preſerve our pupils early from its blind dominion.

The beſt preſervation againſt the preſumption to which ignorance is liable, and the beſt perſervative againſt the ſelf-ſufficiency to which the learned are ſubject, is the habit of varying our ſtudies and occupations. Thoſe who have a general view of the whole map of human knowledge, perceive how many unexplored regions are yet to be cultivated by future induſtry; nor will they implicitly ſubmit to the reports of ignorant voyagers. No imaginary pillars of Hercules will bound their enterprizes. There is no preſumption in believing, that much more is poſſible to ſcience than ever human ingenuity has executed; therefore young people ſhould not be ridiculed for that ſanguine temper, which excites to great inventions. They ſhould be

ridiculed only when they imagine, that they poſſeſs the means of doing things to which they are unequal. The fear of this deſerved ridicule will ſtimulate them to acquire knowledge, and will induce them to eſtimate cautiouſly their own powers before they hazard their reputation. We need not fear that this caution ſhould repreſs their activity of mind; ambition will ſecure their perſeverance, if they are taught that every acquiſition is within the reach of unremitting induſtry. This is not an opinion to be artfully inculcated to ſerve a *particular* purpoſe, but it is an opinion drawn from experience; an opinion which men of the higheſt abilities and integrity, of talents and habits the moſt diſſimilar, have confirmed by their united teſtimony. Helvetius maintained, that no great man ever formed a great deſign, which he was not alſo capable of executing.

Even where perſeverance is exerciſed, the choice of the ſubjects on which the inventive powers are employed determines in a great meaſure their value: therefore, in the education of ingenious children, we ſhould gradually

turn their attention from curious trifles to important objects. Boverick*, who made chains "to yoke a flea," muſt have poſſeſſed exquiſite patience; beſides his chain of two hundred links, with its padlock and key, all weighing together leſs than the third part of a grain, this indefatigable *minute artificer* was the maker of a landau, which opened and ſhut by ſprings; this equipage, with ſix horſes harneſſed to it, a coachman ſitting on the box, with a dog between his legs, four inſide and two outſide paſſengers, beſides a poſtillion riding one of the fore horſes, was drawn with all the eaſe and ſafety imaginable by a well trained flea! The inventor and executor of this puerile machine beſtowed on it, probably, as much time as would have ſufficed to produce Watt's fire engine, or Montgolfier's balloon. It did not, perhaps, coſt the marquis of Worceſter more exertion to draw out his celebrated century of inventions; it did not, perhaps, coſt Newton more to write thoſe queries, which Maclaurin

* Hooke's Micrographia, page 62.

ſaid he could never read without feeling his hair ſtand an end with admiration.

Brebeuf, a French wit, wrote a hundred and fifty epigrams upon a painted lady: a brother wit, fired with emulation, wrote upon the ſame ſubject three hundred more, making in all four hundred and fifty epigrams, each with appropriate turns of their own. Probably, Pope and Parnell did not rack their invention ſo much, or exerciſe more induſtry in completing "The "Rape of the Lock," or "The Riſe of Wo-"man." Theſe will live for ever: who will read the four hundred and fifty epigrams?

The moſt effectual methods to diſcourage in young people the taſte for frivolous ingenuity will be, never to admire theſe "laborious no-"things," to compare them with uſeful and elegant inventions, and to ſhow that vain curioſities can be but the wonder and amuſement of a moment. Children who begin with trifling inventions may be led from theſe to general principles, and with their knowledge their ambition will neceſſarily increaſe. It cannot be expected, that the moſt enlarged

plan of education could early give an intimate acquaintance with all the ſciences; but with their leading principles, their general hiſtory, their preſent ſtate, and their immediate deſiderata*, young people may and ought to be made acquainted. Their own induſtry will afterwards collect more preciſe information, and they will never waſte their time in vain ſtudies and fruitleſs inventions. Even if the cultivation of the memory were our grand object, this plan of education will ſucceed.—When the Abbé de Longuerue, whoſe prodigious memory we have formerly mentioned, was aſked by by the Marquis d'Argenſon, how he managed to arrage and retain in his head every thing that entered it, and to recollect every thing when wanted, the Abbé anſwered,

" Sir, the elements of every ſcience muſt " be learned whilſt we are very young; the " firſt principles of every language, the a b c, " as I may ſay, of every kind of knowledge: " this is not difficult in youth, eſpecially as

* Prieſtley has ably given the deſiderata of electricity, viſion, &c.

" it is not neceſſary to penetrate far; ſimple
" notions are ſufficient; when once theſe are
" acquired, every thing we read afterwards
" finds its proper place."

CHAPTER XXII.

TASTE AND IMAGINATION.

FIGURATIVE language ſeems to have confounded the ideas of moſt writers upon metaphyſics. Imagination, Memory, and Reaſon, have been long introduced to our acquaintance as allegorical perſonages, and we have inſenſibly learned to conſider them as real beings. The "viewleſs regions" of the ſoul have been portioned out amongſt theſe ideal ſovereigns, but diſputes have, nevertheleſs, ſometimes ariſen concerning the boundaries of intellectual provinces. Amongſt the diſputed territories, thoſe of Imagination have been moſt frequently the ſeat of war; her empire has

"it is not neceſſary to penetrate far; ſimple "notions are ſufficient; when once theſe are "acquired, every thing we read afterwards "finds its proper place."

CHAPTER XXII.

TASTE AND IMAGINATION.

FIGURATIVE language ſeems to have confounded the ideas of moſt writers upon metaphyſics. Imagination, Memory, and Reaſon, have been long introduced to our acquaintance as allegorical perſonages, and we have inſenſibly learned to conſider them as real beings. The "viewleſs regions" of the ſoul have been portioned out amongſt theſe ideal ſovereigns, but diſputes have, nevertheleſs, ſometimes ariſen concerning the boundaries of intellectual provinces. Amongſt the diſputed territories, thoſe of Imagination have been moſt frequently the ſeat of war; her empire has

been ſubject to continual revolution, her dominions have been by potent invaders divided and ſubdivided. Fancy*, Memory†, Ideal preſence‡, and Conception §, have ſhared her ſpoils.

By poets imagination has been addreſſed as the great parent of genius, as the arbiter, if not the creator, of our pleaſures; by philoſophers her name has been ſometimes pronounced with horror; to her fatal deluſions they have aſcribed all the crimes and miſeries of mankind. Yet, even philoſophers have not always agreed in their opinions: whilſt ſome have treated Imagination with contempt, as the irreconcilable enemy of Reaſon, by others ‖ ſhe has been conſidered, with more reſpect, as Reaſon's inſeparable friend, as the friend who collects and prepares all the arguments upon which Reaſon decides, as the injured, miſrepreſented power, who is often forced to ſupply

* Warton's ode to Fancy. † Gerard. ‡ Lord Kames. § Profeſſor Stewart.

‖ V. An excellent eſſay of Mr. Barnes's on Imagination Manchester Society, Vol. i.

her adverſaries with eloquence, who is often called upon to preſide at her own trial, and to pronounce her own condemnation.

Imagination is "*the power*," we are told, of "*forming images*;" the word image, however, does not, ſtrictly ſpeaking, expreſs any thing more than a repreſentation of an object of ſight; but the power of imagination extends to objects of all the ſenſes.

"I hear a voice you cannot hear,
"Which ſays I muſt not ſtay.
"I ſee a hand you cannot ſee,
"Which beckons me away."

Imagination hears the voice, as well as ſees the hand; by an eaſy licence of metaphor, what was originally uſed to expreſs the operation of one of our ſenſes, is extended to them all. We do not preciſely ſay, that imagination forms *images* of paſt ſounds, or taſtes, or ſmells; but we ſay, that ſhe forms ideas of them; and ideas, we are told, are mental images. It has been ſuggeſted by Dr. Darwin, that all theſe analogies between images and thoughts have probably originated in our obſerving the

little pictures painted on the retina of the eye.

It is difficult certainly, if not impoſſible, to ſpeak of the inviſible operations of the mind or body, without expreſſing ourſelves in metaphor of ſome kind or other; and we are eaſily miſled by alluſions to ſenſible objects, becauſe when we comprehend the alluſion, we flatter ourſelves that we underſtand the theory which it is deſigned to illuſtrate. Whether we call ideas images in popular language, or vibrations, according to Dr. Heartley's ſyſtem, or modes of ſenſation with Condillac, or motions of the ſenſorium, in the language of Dr. Darwin, may ſeem a matter of indifference. But even the choice of names is not a matter of indifference to thoſe who wiſh to argue accurately; when they are obliged to deſcribe their feelings or thoughts by metaphoric expreſſions, they will prefer the ſimpleſt; thoſe with which the feweſt extraneous aſſociations are connected. Words which call up a variety of heterogeneous ideas to our minds are unfit for the purpoſes of ſober reaſoning; our attention is

diſtracted by them and we cannot reſtrain it to the accurate compariſon of ſimple proportions. We yield to pleaſing reverie, inſtead of exerting painful voluntary attention. Hence it is probably uſeful in our attempts to reaſon, eſpecially upon metaphyſical ſubjects, to change from time to time our nomenclature, and to ſubſtitute terms which have no relation to our old aſſociations, and which do not affect the prejudices of our education. We are obliged to define with ſome degree of accuracy the ſenſe of new terms, and we are thus led to compare our old notions with more ſeverity. Our ſuperſtitious reverence for mere ſymbols is alſo diſſipated; ſymbols are apt to impoſe even upon thoſe who acknowledge their vanity, and who profeſs to conſider them merely as objects of vulgar worſhip.

When we call a claſs of our ideas, *images* and pictures, a tribe of aſſociations with painting comes into our mind, and we argue about Imagination as if ſhe were actually a paintreſs, who has colours at her command, and who, upon ſome inviſible canvaſs in the ſoul, pour-

trays the likeneſs of all earthly and celeſtial objects. When we continue to purſue the ſame metaphor in ſpeaking of the moral influence of Imagination, we ſay that her *colouring* deceives us, that her *pictures* are flattering and falſe, that ſhe draws objects out of proportion, &c. To what do all theſe metaphors lead? We make no new diſcoveries by talking in this manner; we do not learn the cauſe or the cure of any of the diſeaſes of the mind, we only perſuade ourſelves that we know ſomething, when we are really ignorant.

We have ſedulouſly avoided entering into any metaphyſical diſquiſitions; but we have examined with care the ſyſtems of theoretic writers, that we may be able to avail ourſelves of ſuch of their obſervations as can be reduced to practice in education. With reſpect to the arts, imagination may be conſidered practically in two points of view, as it relates to our taſte, and as it relates to our talents for the arts. Without being a poet, or an orator, a man may have a ſufficient degree of imagination to receive pleaſure from the talents of others; he

may be a critical judge of the reſpective merits of orators, poets, and artiſts. This ſenſibility to the pleaſures of the imagination, when judiciouſly managed, adds much to the happineſs of life, and it muſt be peculiarly advantageous to thoſe who are precluded by their ſtation in ſociety from the neceſſity of manual labour. Mental exerciſe, and mental amuſements, are eſſential to all perſons in the higher ranks of life, who would eſcape from the fever of diſſipation, or from the lethargy of ennui. The mere phyſical advantages which wealth can procure are reducible to the ſhort ſum of "*meat*, "*fire, and clothes.*" A nobleman of the higheſt birth, and with the longeſt line of anceſtry, inherits no intuitive taſte, nor can he purchaſe it from the artiſt, the painter, or the poet; the poſſeſſion of the whole Pinelli library could not infuſe the ſlighteſt portion of literature. Education can alone give the full power to enjoy the real advantages of fortune. To educate the taſte and the imagination, it is not neceſſary to ſurround the heir of an opulent family with maſters and connoiſſeurs. Let him never hear

the jargon of amateurs, let him learn the art "not to admire." But in his earlieſt childhood cultivate his ſenſes with care, that he may be able to ſee and hear, to feel and underſtand, for himſelf. Viſible images he will rapidly collect in his memory; but theſe muſt be ſelected, and his firſt aſſociations muſt not be truſted to accident. Encourage him to obſerve with attention all the works of nature, but ſhew him only the beſt imitations of art; the firſt objects that he contemplates with delight will remain long aſſociated with pleaſure in his imagination; you muſt, therefore, be careful, that theſe early aſſociations accord with the deciſions of thoſe who have determined the national ſtandard of taſte. In many inſtances taſte is governed by arbitrary and variable laws; the faſhions of dreſs, of decoration, of manner, change from day to day; therefore no excluſive prejudices ſhould confine your pupil's underſtanding. Let him know, as far as we know them, the general principles which govern mankind in their admiration of the ſublime and beautiful; but at the ſame time give him that

enlarged toleration of mind, which comprehends the poſſibility of a taſte different from our own. Shew him, and you need not go farther than the Indian ſkreen, or the Chineſe paper in your drawing-room, for the illuſtration, that the ſublime and beautiful vary at Pekin, at London, on Weſtminſter bridge, and on the banks of the Ganges. Let your young pupil look over a collection of gems or of ancient medals; it is neceſſary that his eye ſhould be early accuſtomed to Grecian beauty, and to all the claſſic forms of grace. But do not ſuffer him to become a bigot, though he may be an enthuſiaſt in his admiration of the antique. Short leſſons upon this ſubject may be conveyed in a few words. If a child ſees you look at the bottom of a print for the name of the artiſt, before you will venture to pronounce upon its merits, he will follow your example, and he will judge by the authority of others, and not by his own taſte. If he hears you aſk, who wrote this poem? Who built this palace? Is this a genuine antique? he will aſk the ſame queſtions before he ventures to be pleaſed. If

he hears you pronounce with emphaſis, that ſuch a thing comes from Italy, and therefore muſt be in good taſte, he will take the ſame compendious method of deciſion upon the firſt convenient occaſion. He will not trouble himſelf to examine why utility pleaſes, nor will he analyſe his taſte, to diſcover why one proportion or one deſign pleaſes him better than another; he will, if by example you teach him prejudice, content himſelf with repeating the words, proportion, antique, picturesque, &c. without annexing any preciſe ideas to theſe words.

Parents, who have not turned their attention to metaphyſics, may, perhaps, apprehend, that they have ſomething very abſtruſe or intricate to learn, before they can inſtruct their pupils in the principles of taſte: but theſe principles are ſimple, and two or three entertaining books, of no very alarming ſize, compriſe all that has yet been aſcertained upon this ſubject. Vernet's Théorie des Sentimens Agréables; Hogarth's Analyſis of Beauty; an Eſſay of Hume's on the Standard of Taſte; Burke's Sublime and

Beautiful; Lord Kaimes's Elements of Criticiſm; Sir Joſhua Reynolds's Diſcourſes; and Aliſon on Taſte; contain ſo much inſtruction, mixed with ſo much amuſement, that we cannot think that it will be a *terrible taſk* to any parent to peruſe them.

Theſe books are above the comprehenſion of children; but the principles which they contain can be early illuſtrated in converſation. It will be eaſy in familiar inſtances to ſhew children that the fitneſs, propriety, or utility, of certain forms recommends them to our approbation: that uniformity, an appearance of order and regularity, are, in ſome caſes, agreeable to us; contraſt, in others: that one claſs of objects pleaſes us from habit, another from novelty; &c. The general principle that governs taſte, in the greateſt variety of inſtances, is the aſſociation of ideas, and this fortunately can be moſt eaſily illuſtrated.

"I like ſuch a perſon becauſe her voice puts "me in mind of my mother's. I like this "walk, becauſe I was very happy the laſt time "I was here with my ſiſter. I think green is

"the prettieſt of all colours; my father's room "is painted green, and it is very cheerful, and "I have been very happy in that room: and, "beſides, the graſs is green in ſpring." Such ſimple obſervations as theſe come naturally from children; they take notice of the influence of aſſociation upon their taſte, though, perhaps, they may not extend their obſervations ſo as to deduce the general principle according to philoſophical forms. We ſhould not lay down for them this or any other principle of taſte, as a rule which they are to take for granted; but we ſhould lead them to claſs their own deſultory remarks, and we ſhould excite them to attend to their own feelings, and to aſcertain the truth by experiments upon themſelves. We have often obſerved, that children have been much entertained with comparing the accidental circumſtances they have met with, and the unpremeditated expreſſions uſed in converſation, with any general maxim. In this point of view, we may render even general maxims ſerviceable to children, becauſe they will excite to experiment: our pupils will detect their

falſehood, or, after ſufficient reflection, acknowledge their truth.

Perhaps it may be thought, that this mode of inſtruction will tend rather to improve the judgment than the taſte; but every perſon of good taſte muſt have alſo a good judgment in matters of taſte: ſometimes the judgment may have been partially exerciſed upon a particular claſs of objects, and its accuracy of diſcrimination may be confined to this one ſubject; therefore we haſtily decide, that, becauſe men of taſte may not always be men of univerſally good judgment, theſe two powers of the mind are unneceſſary to one another. By teaching the philoſophy at the ſame time that we cultivate the pleaſures of taſte, we ſhall open to our pupils a new world, we ſhall give them a new ſenſe. The pleaſure of every effect will be increaſed by the perception of its cauſe: the magic of the ſcenery will not loſe its power to charm, though we are aware of the ſecret of the enchantment.

We have hitherto ſpoken of the taſte for what is beautiful, a taſte for the ſublime we ſhould

be cautious in cultivating. Obſcurity and terror are two of the grand ſources of the ſublime; analyſe the feeling, examine accurately the object which creates the emotion, and you diſſipate the illuſion, you annihilate the pleaſure.

"What ſeemed its head the likeneſs of a kingly crown had on."

The indiſtinctneſs of the head and of the kingly crown makes this a ſublime image. Upon the ſame principle,

"Danger, whoſe limbs, of giant mould,
"No mortal eye can fix'd behold,"

always muſt appear ſublime as long as the paſſion of fear operates. Would it not, however, be imprudent in education to permit that early propenſity to ſuperſtitious terrors, and that temporary ſuſpenſion of the reaſoning faculties, which are often eſſential to our taſte for the ſublime? When we hear of "Margaret's grimly "ghoſt," or of the "dead ſtill hour of night," a ſort of awful trembling ſeizes us, partly from the effect of early aſſociations, and partly from the ſolemn tone of the reader. The early aſſo-

ciations which we perhaps have formed of terror, with the ideas of apparitions, and winding ſheets, and ſable ſhrowds, ſhould be unknown to children. The ſilent ſolemn hour of midnight ſhould not to them be an hour of terror. In the following poetic deſcription of the beldame telling dreadful ſtories to her infant audience, we hear only of the pleaſures of the imagination, we do not recollect how dearly theſe pleaſures muſt be purchaſed by their votaries:

" * * * * * finally by night
" The village matron, round the blazing hearth,
" Suſpends the infant audience with her tales,
" Breathing aſtoniſhment! of witching rhymes,
" And evil ſpirits; of the deathbed call
" Of him who robbed the widow, and devoured
" The orphan's portion; of the unquiet ſouls
" Ris'n from the grave to eaſe the heavy guilt
" Of deeds in life concealed; of ſhapes that walk
" At dead of night, and clank their chains, and wave
" The torch of hell around the murd'rer's bed.
" At every ſolemn pauſe the crowd recoil,
" Gazing each other ſpeechleſs, and congeal'd
" With ſhiv'ring fighs; till, eager for th' event,
" Around the beldame all erect they hang,
" Each trembling heart with grateful terrors quell'd*."

* Akenſide.

No prudent mother will ever imitate this eloquent village matron, nor will ſhe permit any beldame in the nurſery to conjure up theſe ſublime ſhapes, and to quell the hearts of her children with theſe grateful terrors. We were once preſent when a group of ſpeechleſs children ſat liſtening to the ſtory of Blue-beard, "breathing aſtoniſhment." A gentleman who ſaw the charm beginning to operate, reſolved to counteract its dangerous influence. Juſt at the critical moment, when the fatal key drops from the trembling hands of the imprudent wife, the gentleman interrupted the awful pauſe of ſilence that enſued, and requeſted permiſſion to relate the remainder of the ſtory. Tragi-comedy does not offend the taſte of young, ſo much as of old critics; the tranſition from grave to gay was happily managed. Blue-beard's wife afforded much diverſion, and loſt all ſympathy the moment ſhe was repreſented as a curious, tattling, timid, ridiculous woman. The terrors of Blue-beard himſelf ſubſided when he was properly introduced to the company; and the denouement of the piece was

managed much to the entertainment of the audience; the cataſtrophe, inſtead of freezing their young blood, produced general laughter. Ludicrous images, thus preſented to the mind which has been prepared for horror, have an inſtantaneous effect upon the riſible muſcles: it ſeems better to uſe theſe means of counteracting the terrors of the imagination, than to reaſon upon the ſubject whilſt the fit is on; reaſon ſhould be uſed between the fits*. Thoſe who ſtudy the minds of children know the nice touches which affect their imagination, and they can by a few words change their feelings by the power of aſſociation.

Ferdinand Duke of Tuſcany was once ſtruck with the picture of a child crying: the painter†, who was at work upon the head, wiſhed to give the duke a proof of his ſkill; by a few judicious ſtrokes he converted the crying into a laughing face. The duke, when he looked at

* "Know there are words and ſpells which can control,
"Between the fits, the fever of the ſoul." POPE.

† Peter of Cortona.

the child again, was in aſtoniſhment: the painter, to ſhow himſelf maſter of the human countenance, reſtored his firſt touches; and the duke, in a few moments, ſaw the child weeping again. A preceptor may acquire ſimilar power over the countenance of his pupil if he has ſtudied the oratorical art: by the art of oratory, we do not mean the art of miſrepreſentation, the art of deception, we mean the art of ſhewing the truth in the ſtrongeſt light, of exciting virtuous enthuſiaſm and generous indignation. Warm, glowing eloquence is not inconſiſtent with accuracy of reaſoning and judgment. When we have expreſſed our admiration or abhorrence of any action or character, we ſhould afterwards be ready coolly to explain to our pupils the juſtice of our ſentiments: by this due mixture and alternation of eloquence and reaſoning, we may cultivate a taſte for the moral ſublime, and yet preſerve the character from any tincture of extravagant enthuſiaſm. We cannot expect, that the torrent of paſſion ſhould never ſweep away the landmarks of exact morality; but after its over-

flowing impetuoſity abates, we ſhould take a calm ſurvey of its effects, and we ſhould be able to aſcertain the boundaries of right and wrong with geometrical preciſion.

There is a ſtyle of bombaſt morality affected by ſome authors, which muſt be hurtful to young readers; generoſity and honour, courage and ſentiment, are the ſtriking qualities which ſeize and enchant the imagination in romance: theſe qualities muſt be joined with juſtice, prudence, economy, patience, and many humble virtues, to make a character really eſtimable; but theſe would ſpoil the effect perhaps of dramatic exhibition.

Children may with much greater ſafety ſee hideous than gigantic repreſentations of the paſſions. Richard the third excites abhorrence; but young Charles De Moor, in "The Robbers," commands our ſympathy; even the enormity of his guilt exempts him from all ordinary modes of trial; we forget the murderer, and ſee ſomething like a hero. It is curious to obſerve, that the legiſlature in Germany, and in England, have found it neceſſary to interfere as to

the repreſentation of Captain Mac Heath and the Robbers*; two characters in which the tragic and the comic muſe have had powerful effects in exciting imitation. George Barnwell is a hideous repreſentation of the paſſions, and therefore beneficial.

There are many ſublime objects which do not depend upon terror, or at leaſt upon falſe aſſociations of terror, for their effect; and there are many ſublime thoughts, which have no connection with violent paſſions or falſe ideas of morality. Theſe are what we ſhould ſelect, if poſſible, to raiſe, without inflating the imagination. The view of the ocean, of the ſetting or the riſing ſun, the great and bold ſcenes of nature, affect the mind with ſublime pleaſure. All the objects which ſuggeſt ideas of vaſt ſpace, or power, of the infinite duration of time, of the decay of the monuments of ancient grandeur, or of the maſter-pieces of human art and induſtry, have power to riſe ſublime ſenſations: but we ſhould conſider, that they raiſe this pleaſure only by ſuggeſting certain ideas;

* V. Preface to The Robbers.

thoſe, who have not the previous ideas, will not feel the pleaſure. We ſhould not therefore expect, that children ſhould admire objects which do not excite any ideas in their minds; we ſhould wait till they have acquired the neceſſary knowledge, and we ſhould not injudiciouſly familiariſe them with theſe objects.

Simplicity is a ſource of the ſublime peculiarly ſuited to children; accuracy of obſervation and diſtinctneſs of perception are eſſential to this ſpecies of the ſublime. In Percy's collection of ancient ballads, and in the modern poems of the Ayreſhire ploughman, we may ſee many inſtances of the effect of ſimplicity. To preſerve our pupil's taſte from a falſe love of ornament, he muſt avoid, both in books or in converſation, all verboſe and turgid deſcriptions, the uſe of words and epithets which only fill up the meaſure of a line.

When a child ſees any new object, or feels any new ſenſation, we ſhould aſſiſt him with appropriate words to expreſs his thoughts and feelings; when the impreſſion is freſh in his mind, the aſſociation with the preciſe deſcrip-

tive epithets can be made with moſt certainty. As ſoon as a child has acquired a ſufficient ſtock of words and ideas, he ſhould be from time to time exerciſed in deſcription; we ſhould encourage him to give an exact account of his own feelings in his own words. Thoſe parents who have been uſed to elegant, will not perhaps be ſatisfied with the plain deſcriptions of unpractiſed pupils; but they ſhould not be faſtidious, they ſhould rather be content with an epithet too little, than with an epithet too much, and they ſhould compare the child's deſcription with the objects actually deſcribed, and not with the poems of Thompſon or Gray, or Milton or Shakſpeare. If we excite our pupils to copy from the writings of others, they never can have any originality of thought. To ſhew parents what ſort of ſimple deſcriptions they may reaſonably expect from children, we venture to produce the following extempore deſcriptions of a ſummer's evening, given by three children of different ages.

July 12th, 1796. Mr. ——— was walking out with his family, and he aſked his children

to deſcribe the evening juſt as it appeared to them. "There were three bards in Oſſian's "poems," ſaid he, "who were ſent out to ſee "what ſort of a night it was; they all gave "different deſcriptions upon their return; you "have never any of you read Oſſian, but you "can give us ſome deſcription of this evening; "try."

B—— (a girl of 14). "The clouds in the "weſt are bright with the light of the ſun "which has juſt ſet; a thick miſt is ſeen in "the eaſt, and the ſmoke which had been "*heaped up* in the day time is now ſpread, and "mixes with the miſt all round us; the noiſes "are heard more plainly (though there are but "few) than in the day-time; and thoſe which "are at a diſtance ſound almoſt as near as thoſe "which are cloſe to us; there is a red miſt "round the moon."

C—— (a girl of eleven years old). "The "weſtern clouds are pink with the light of the "ſun which has juſt ſet. The moon ſhines red "through the miſt. The ſmoke and miſt makes "it look dark at a diſtance, but the few objects

" near us appear plainer. If it was not for the " light of the moon they would not be ſeen, but " the moon is exceedingly bright, it ſhines upon " the houſe and the windows. Every thing " ſounds buſy at a diſtance, but what is near " us is ſtill."

S——(a boy between nine and ten years old). " The ſun has ſet behind the hill, and the weſ- " tern clouds are tinged with light. The miſt " mixes with the ſmoke, which riſes from the " heaps of weeds which ſome poor man is " burning to earn bread for his family. The " moon through the miſt peeps her head, and " ſometimes ſhe *goes back*, retires into her bower " of clouds. The few noiſes that are heard are " heard very plain—very plainly."

We ſhould obſerve, that the children who attempted theſe little deſcriptions had not been habituated to the *poetic trade*; theſe were the only deſcriptions of an evening which they ever made. It would be hurtful to exerciſe children frequently in deſcriptive compoſition; it would give them the habit of exact obſervation, it is true, but ſomething more is neceſſary to

the higher ſpecies of poetry. Words muſt be ſelected which do not only repreſent, but which ſuggeſt ideas. Minute accuracy is eſſential to ſome ſorts of deſcription; but in a higher ſtyle of poetry, only the large features characteriſtic of the ſcene muſt be produced, and all that is ſubordinate muſt be ſuppreſſed. Sir Joſhua Reynolds juſtly obſerves, that painters who aim merely at deception of the eye by exact imitation, are not likely, even in their moſt ſucceſsful imitations, to rouſe the imagination. The man who miſtook the painted fly for a real fly, only bruſhed, or attempted to bruſh it away; the exact repreſentation of ſuch a common object could not raiſe any ſublime ideas in his mind, and when he perceived the deception, the wonder which he felt at the painter's art was a ſenſation different from poetic enthuſiaſm.

As ſoon as young people have collected a variety of ideas, we can proceed a ſtep in the education of their fancy. We ſhould ſometimes in converſation, ſometimes in writing or in drawing, ſhow them how a few ſtrokes, or a few words can ſuggeſt or combine various ideas.

A ſingle expreſſion from Cæſar charmed a mutinous army to inſtant ſubmiſſion. Unleſs the words "*Roman Citizens!*" had ſuggeſted more than meets the ear, how could they have produced this wonderful effect? The works of Voltaire and Sterne abound with examples of the ſkilful uſe of the language of ſuggeſtion; on this the wit of Voltaire, and the humour and pathos of Sterne, ſecurely depend for their ſucceſs. Thus, corporal Trim's eloquence on the death of his young maſter owed its effect upon the whole kitchen, including "the fat ſcullion, "who was ſcouring a fiſh-kettle upon her "knees," to the well-timed uſe of the mixed language of action and ſuggeſtion.

"Are we not here now?' continued the "corporal (ſtriking the end of his ſtick perpendi-"cularly upon the floor, ſo as to give an idea "of health and ſtability), 'and are we not' "(dropping his hat upon the ground) 'gone in "a moment?"

"Are we not here now? and gone in a mo-"ment?" continues Sterne, who, in this inſtance, reveals the ſecret of his own art. "There

" was nothing in the ſentence; it was one of " your ſelf-evident truths we have the advan- " tage of hearing every day; and if Trim had " not truſted more to his hat than his head, he " had made nothing at all of it."

When we point out to our pupils ſuch examples in Sterne, we hope it will not be underſtood, that we point them out to induce ſervile imitation. We apprehend, that the imitators of Sterne have failed, from not having diſcovered that the interjections and ——— daſhes of this author, are not in themſelves beauties, but that they affect us by ſuggeſting ideas. To prevent any young writers from the intemperate or abſurd uſe of interjections, we ſhould ſhew them Mr. Horne Tooke's acute remarks upon this mode of embelliſhment. We do not, however, entirely agree with this author in his abhorrence of interjections. We do not believe that " where ſpeech can be employed they are " totally uſeleſs; and are always inſufficient " for the purpoſe of communicating our " thoughts *." Even if we claſs them, as Mr.

* V. Epea Pteroenta, p. 88.

Tooke himſelf does*, amongſt "involuntary "convulſions with oral ſound," ſuch as groaning, ſhrieking, &c. yet they may ſuggeſt ideas, as well as expreſs animal feelings. Sighing, according to Mr. Tooke, is in the claſs of interjections, yet the poet acknowledges the ſuperior eloquence of ſighs:

"Perſuaſive words, and *more perſuaſive* ſighs."

"I wiſh,' ſaid Uncle Toby, with a deep ſigh (after hearing the ſtory of Le Fevre), 'I wiſh, "Trim, I was aſleep." The ſigh here adds great force to the wiſh, and it does not mark that Uncle Toby, from vehemence of paſſion, had returned to the brutal ſtate of a ſavage who has not learnt the uſe of ſpeech: but, on the contrary, it ſuggeſts to the reader, that Uncle Toby was a man of civilized humanity; not one whoſe compaſſion was to be excited merely as an animal feeling by the actual *ſight* of a fellow-creature in pain, but rather by the deſcription of the ſufferer's ſituation.

In painting, as well as in writing, the lan-

* Chapter on Grammar.

guage of ſuggeſtion affects the mind, and if any of our pupils ſhould wiſh to excel in this art, they muſt early attend to this principle. The picture of Agamemnon hiding his face at the ſacrifice of his daughter expreſſes little to the eye, but much to the imagination. The uſual ſigns of grief and joy make but ſlight impreſſion; to laugh and to weep are ſuch common expreſſions of delight or anguiſh, that they cannot be miſtaken, even by the illiterate; but the imagination muſt be cultivated to enlarge the ſphere of ſympathy, and to render a more refined language intelligible. It is ſaid that a Milaneſe artiſt painted two peaſants, and two country-girls, who laughed ſo heartily, that *no one* could look at them without laughing*. This is an inſtance of ſympathy unconnected with imagination. The following in an inſtance of ſympathy excited by imagination. When Porcia was to part from Brutus, juſt before the breaking out of the civil war, "ſhe endea-"voured," ſays Plutarch, "as well as poſſible, "to conceal the ſorrow that oppreſſed her; but,

* V. Camper's Works, p. 126.

" notwithſtanding her magnanimity, a picture " betrayed her diſtreſs. The ſubject was the " parting of Hector and Andromache. He was " repreſented delivering his ſon Aſtyanax into " her arms, and the eyes of Andromache were " fixed upon him. The reſemblance that this " picture bore to her own diſtreſs made *Porcia* " burſt into tears the moment ſhe beheld it." If Porcia had never read Homer, Andromache would not have had this power over her imagination and her ſympathy.

The imagination not only heightens the power of ſympathy with the emotions of all the paſſions which a painter would excite, but it is likewiſe eſſential to our taſte for another claſs of pleaſures. Artiſts, who like Hogarth would pleaſe by humour, wit, and ridicule, muſt depend upon the imagination of the ſpectators to ſupply all the intermediate ideas which they would ſuggeſt. The cobweb over the poor box, one of the happieſt ſtrokes of ſatire that Hogarth ever invented, would probably ſay nothing to the inattentive eye, or the dull imagination. A young perſon muſt acquire the

language before he can underſtand the ideas of ſuperior minds.

The taſte for poetry muſt be prepared by the culture of the imagination. The united powers of muſic and poetry could not have triumphed over Alexander, unleſs his imagination had aſſiſted " the mighty maſter."

" With downcaſt looks the joyleſs victor ſat,
" Revolving in his altered ſoul
" The various turns of chance below ;
" And now and then a ſigh he ſtole,
" And tears began to flow."

The ſigh and the tears were the conſequences of Alexander's own thoughts, which were only recalled by kindred ſounds. We are well aware, that ſavage nations, or thoſe that are imperfectly civilized, are ſubject to enthuſiaſm ; but we are inclined to think that the barbarous clamour, with which they proclaim their delight in muſic and poetry, may deceive us as to the degree in which it is felt : the ſenſations of cultivated minds may be more exquiſite, though they are felt in ſilence. It has been ſuppoſed, that ignorance is extremely ſuſcep-

tible of the pleaſures of wonder; but wonder and admiration are different feelings: the admiration which a cultivated mind feels for excellence, of which it can fully judge, is ſurely a higher ſpecies of pleaſure, than the brute wonder expreſſed by "a fooliſh face of praiſe." Madame Roland tells us, that once, at a ſermon preached by a celebrated Frenchman, ſhe was ſtruck with the earneſt attention painted in the countenance of a young woman who was looking up at the preacher. At length the fair enthuſiaſt exclaimed, "My God, how he per-"ſpires!" A different ſort of admiration was felt by Cæſar, when the ſcroll dropped from his hand whilſt he liſtened to an oration of Cicero's.

There are an infinite variety of aſſociations, by which the orator has power to rouſe the imagination of a perſon of cultivated underſtanding; there are comparatively few, by which he can amuſe the fancy of illiterate auditors. It is not that they have leſs imagination than others, they have equally the power of raiſing vivid images, but there are few images which can be recalled to them; the combina-

tions of their ideas are confined to a ſmall number, and words have no poetic or literary aſſociations in their minds: even amongſt children this difference between the power we have over the cultivated and uncultivated mind early appears. A laurel leaf is to the eye of an illiterate boy nothing more than a ſhrub with a ſhining, green, pointed leaf: recal the idea of that ſhrub by the moſt exact deſcription, it will affect him with no peculiar pleaſure: but aſſociate early in a boy's mind the ideas of glory, of poetry, of Olympic crowns, of Daphne and Apollo; by ſome of theſe latent aſſociations the orator may afterwards raiſe his enthuſiaſm. We ſhall not here repeat what has been ſaid upon the choice of literature for young people, but ſhall once more warn parents to let their pupils read only the beſt authors, if they wiſh them to have a fine imagination, or a delicate taſte. When their minds are awake and warm, ſhew them excellence: let them hear oratory only when they can feel it; if the impreſſion be vivid, no matter how tranſient the touch. Ideas which have once ſtruck the imagination can be

recalled by the magic of a word, with all their original, all their aſſociated force. Do not fatigue the eye and ear of your vivacious pupil with the monotonous ſounds and confuſed images of vulgar poetry. Do not make him repeat the fineſt paſſages of Skakeſpeare and Milton; the effect is loſt by repetition; the words, the ideas are profaned. Let your pupils hear eloquence from eloquent lips, and they will own its power. But let a drawling, unimpaſſioned reader, read a play of Shakſpeare's, or an oration of Demoſthenes, and if your pupil is not out of patience, he will never taſte the charms of eloquence. If he feels a fine ſentiment, or a ſublime idea, pauſe, leave his mind full, leave his imagination elevated. Five minutes afterwards, perhaps, your pupil's attention is turned to ſomething elſe, and the ſublime idea ſeems to be forgotten: but do not fear; the idea is not obliterated; it is latent in his memory; it will appear at a proper time, perhaps a month, perhaps twenty years afterwards. Ideas may remain long uſeleſs, and almoſt forgotten in the mind, and may be called forth by ſome correſponding aſſociation from their torpid ſtate.

Young people, who wiſh to make themſelves orators or eloquent writers, ſhould acquire the habit of attending firſt to the general impreſſion made upon their own minds by oratory, and afterwards to the cauſe which produced the effect; hence they will obtain command over the minds of others, by uſing the knowledge they have acquired of their own. The habit of conſidering every new idea, or new fact, as a ſubject for alluſion, may alſo be uſeful to the young orator. A change from time to time in the nature of his ſtudies will enlarge and invigorate his imagination. Gibbon ſays, that, after the publication of his firſt volume of the Roman hiſtory, he gave himſelf a ſhort holiday. "I indulged my curioſity in ſome ſtudies of a "very different nature: a courſe of anatomy, "which was demonſtrated by Dr. Hunter, and "ſome leſſons of chymiſtry, which were deliver-"ed by Dr. Higgins. The principles of theſe "ſciences, and a taſte for books of natural hiſ-"tory, contributed to multiply my ideas and "images; and the anatomiſt and chymiſt may "ſometimes track me in their own ſnow."

Different degrees of enthuſiaſm are requiſite in different profeſſions; but we are inclined to think that the imagination might with advantage be cultivated to a much higher degree than is commonly allowed in young men intended for public advocates. We have ſeen ſeveral examples of the advantage of a general taſte for the belles lettres in eminent lawyers*; and we have lately ſeen an ingenious treatiſe called Deinology, or Inſtructions for a Young Barriſter, which confirms our opinion upon this ſubject. An orator, by the judicious preparation of the minds of his audience, may increaſe the effect of his beſt arguments. A Grecian painter †, before he would produce a picture which he had finiſhed, repreſenting a martial enterprize, ordered martial muſic to be played, to raiſe the enthuſiaſm of the aſſembled ſpectators; when their imagination was ſufficiently elevated, he uncovered the picture, and it was beheld with ſympathetic tranſports of applauſe.

* Lord Mansfield, Huſſey Burgh, &c.

† Theon.

It is uſually thought that perſons of extraordinary imagination are deficient in judgment; by proper education this evil might be prevented. We may obſerve that perſons, who have acquired particular facility in certain exerciſes of the imagination, can by voluntary exertion either excite or ſuppreſs certain trains of ideas on which their enthuſiaſm depends. An actor, who ſtorms and raves whilſt he is upon the ſtage, appears with a mild and peaceable demeanour a moment afterwards behind the ſcenes. A poet, in his inſpired moments, repeats his own verſes in his garret with all the emphaſis and fervor of enthuſiaſm; but when he comes down to dine with a mixed convivial company, his poetic fury ſubſides, a new train of ideas takes place in his imagination. As long as he has ſufficient command over himſelf to lay aſide his enthuſiaſm in company, he is conſidered as a reaſonable, ſenſible man, and the more imagination he diſplays in his poems the better. The ſame exerciſe of fancy, which we admire in one caſe, we ridicule in another. The enthu-

ſiaſm which characteriſes the man of genius borders upon inſanity.

When Voltaire was teaching mademoiſelle Clairon, the celebrated actreſs, to perform an impaſſioned part in one of his tragedies, ſhe objected to the violence of his enthuſiaſm. "Mais, monſieur, on me prendroit pour une "poſſedée*!"—"Eh mademoiſelle," replied the philoſophic bard, "il faut être un poſſedé "pour réuſſir en aucun art."

The degree of enthuſiaſm, which makes the painter and poet ſet a value which to more idle, or more buſy mortals, appears imaginary upon their reſpective arts, ſupports the artiſt under the preſſure of diſappointment and neglect, ſtimulates his exertions, and renders him almoſt inſenſible to labour and fatigue. Military heroes, or thoſe who are "*inſane with ambition*†," endure all the real miſeries of life, and brave the terrors of death, under the invigorating in-

"* But, Sir, I ſhall be taken for one poſſeſſed!"

"Well, Ma'am, you muſt be *like one poſſeſſed*, if you "would ſucceed in any art."

† Dr. Darwin.

that all was vanity and vexation of ſpirit; he did not, perhaps, feel more weary of the world than the poor juggler felt, who, after educating his hands to the aſtoniſhing dexterity of throwing up into the air, and catching as they fell, ſix eggs ſucceſſively, without breaking them, received from the emperor, before whom he performed, ſix eggs to reward the labour of his life! This poor man's ambition appears obviouſly abſurd, and we are under no immediate apprehenſion, that parents ſhould inſpire their children with the enthuſiaſm neceſſary to the profeſſion of a juggler: but unleſs ſome precautions are taken, the objects which excite the ambition of numbers may be placed ſo as to deceive the eye and imagination of children; and they may labour through life in purſuit of phantoms. If children early hear their parents expreſs violent admiration for riches, rank, power, or fame, they catch a ſpecies of enthuſiaſm for theſe things, before they can eſtimate juſtly their value; from the countenance and manner they draw very important concluſions. "Felicity is painted on your counte-

" nance," is a polite phraſe of ſalutation in China. The taſte for looking happy is not confined to the Chineſe: the rich and great*, by every artifice of luxury, endeavour to impreſs the ſpectator with the idea of their ſuperior felicity. From experience we know, that the external ſigns of delight are not always ſincere, and that the apparatus of luxury is not neceſſary to happineſs. Children who live with perſons of good ſenſe learn to ſeparate the ideas of happineſs and a coach and ſix; but young people who ſee their fathers, mothers, and preceptors, all ſmitten with ſudden admiration at the ſight of a fine phaeton, or a fine gentleman, are immediately infected with the ſame abſurd enthuſiaſm. Theſe parents do not ſuſpect, that they are perverting the imagination of their children, when they call them with fooliſh eagerneſs to the windows to look at a fine equipage, a ſplendid cavalcade, or a military proceſſion; they perhaps ſummon a boy, who is intended for a merchant, or a lawyer, to hear " the ſpirit ſtir-" ring drum;" and they are afterwards ſurpriſed,

* V. Smith's Moral Theory.

if he ſays, when he is fifteen or ſixteen, that, "*if his father pleaſes*, he had rather go into "the army than go to the bar." The mother is alarmed, perhaps, about the ſame time by an unaccountable predilection in her daughter's fancy for a red coat, and totally forgets having called the child to the window to look at the ſmart cockades, and to hear the tune of "See "the conqu'ring hero comes."

"Hear you me, Jeſſica," ſays Shylock to his daughter, "lock up my doors; and when "you hear the drum, and the vile ſqueaking "of the wry-necked fife, clamber not you up "into the caſements then."

Shylock's exhortations were vain; Jeſſica had arrived at years of diſcretion, and it was too late to forbid her clambering up to the caſements; the precautions ſhould have been taken ſooner; the epithets vile ſqueaking and wry-necked fife could not alter the lady's taſte: and Shylock ſhould have known how peremptory prohibitions and exaggerated expreſſions of averſion operate upon the female imagination; he was imprudent in the extreme of his caution.

We ſhould let children ſee things as they really are, and we ſhould not prejudice them either by our exclamations of rapture, or by our affected diſguſt. If they are familiariſed with ſhow they will not be caught by it; if they ſee the whole of whatever is to be ſeen, their imagination will not paint things more delighful than they really are. For theſe reaſons we think that young people ſhould not be reſtrained, though they may be guided in their taſtes; we ſhould ſupply them with all the information in which they are deficient, and leave them to form their own judgments.

Without making it a matter of favour, or of extraordinary conſequence, parents can take their children to ſee public exhibitions, or to partake of any amuſements which are really agreeable; they can at the ſame time avoid mixing factitious with real pleaſure. If, for inſtance, we have an opportunity of taking a boy to a good play, or a girl to a ball, let them enjoy the full pleaſure of the amuſement, but do not let us excite their imagination by great preparations, or by anticipating remarks: "Oh,

" you'll be very happy to-morrow, for you're " to go to the play. You muſt look well to- " night, for you are going to the ball! Were " you never at a ball? Did you never ſee a play " before? Oh, *then* you'll be delighted, I'm " ſure!" The children often look much more ſenſible, and ſometimes more compoſed, in the midſt of theſe fooliſh exclamations, than their parents. " Eſtce que je m'amuſe, ma- " man?" ſaid a little girl of ſix years old, the firſt time ſhe was taken to the playhouſe.

Beſides the influence of opinion, there are a number of other circumſtances to be conſidered in cultivating the imagination. The diſpoſition to aſſociate ideas varies in ſtrength and quickneſs in oppoſite temperaments; the natural vivacity or dullneſs of the ſenſes, the habit of obſerving external objects, the power of voluntary exertion, the propenſity to reverie, muſt all be conſidered before we can adapt a plan of education exactly to the pupil's advantage. A wiſe preceptor will counteract as much as poſſible all thoſe defects, to which a child may appear moſt liable, and will cultivate his ima-

gination ſo as to prevent the errors, to which he is moſt expoſed by natural, or what we call, natural diſpoſition.

Some children appear to feel ſenſations of pleaſure or pain with more energy than others; they take more delight in feeling than in reflection; they have neither much leiſure nor much inclination for the intellectual exertions of compariſon or deliberation. Great care ſhould be taken to encourage children of this temper to deſcribe and to compare their ſenſations. By their deſcriptions we may diſcover what motives we ought to employ to govern them, and if we can teach them to compare their feelings, we ſhall induce that voluntary exertion of mind in which they are naturally defective. We cannot compare or judge of our ſenſations without voluntary exertion. When we deliberate we repeat our ideas ſlowly, and this is an exerciſe peculiarly uſeful to thoſe who feel quickly.

When any pleaſure makes too great an impreſſion upon children of vivid ſenſations, we ſhould repeat it frequently till it begins to fatigue; or we ſhould contraſt it, and bring it

into direct compariſon with ſome other ſpecies of pleaſure. For inſtance, ſuppoſe a boy had appeared highly delighted with ſeeing a game at cards, and that we were apprehenſive he might from this early aſſociation acquire a taſte for gaming; we might either repeat the amuſement till the playing at cards began to weary the boy, or we might take him immediately after playing at cards to an intereſting comedy; probably, the amuſement he would receive at the playhouſe would be greater than that which he had enjoyed at the card-table; and as theſe two ſpecies of pleaſure would immediately ſucceed to each other, the child could ſcarcely avoid comparing them. Is it neceſſary to repeat, that all this ſhould be done without any artifice? The child ſhould know the meaning of our conduct, and then he will never ſet himſelf in oppoſition to our management.

If it is not convenient, or poſſible, to dull the charm of novelty by repetition, or to contraſt a new pleaſure with ſome other ſuperior amuſement, there is another expedient which may be uſeful; we may call the power of aſſo-

ciation to our aſſiſtance: this power is ſometimes a full match for the moſt lively ſenſations. For inſtance, ſuppoſe a boy of ſtrong feelings had been offended by ſome trifle, and expreſſed ſenſations of hatred againſt the offender obviouſly too violent for the occaſion; to bring the angry boy's imagination to a temperate ſtate, we might recall ſome circumſtance of his former affection for the offender; or the general idea, that it is amiable and noble to command our paſſion, and to forgive thoſe who have injured us. At the ſight of his mother, with whom he had many agreeable aſſociations, the imagination of Coriolanus raiſed up inſtantly a train of ideas connected with the love of his family, and of his country, and immediately the violence of his ſenſations of anger were ſubdued.

Brutus, after his friend Caſſius has apologiſed to him for his "raſh humour," by ſaying, "that "it was hereditary from his mother," promiſes that the next time Caſſius is over-earneſt with "his Brutus, he will think his mother chides, "and leave him ſo;" that is to ſay, Brutus promiſes to recollect an aſſociation of ideas,

which ſhall enable him to bear with his friend's ill humour.

Children, who aſſociate ideas very ſtrongly and with rapidity, muſt be educated with continual attention. With children of this claſs the ſlighteſt circumſtances are of conſequence; they may at firſt appear to be eaſily managed, becauſe they will remember pertinaciouſly any reproof, any reward or puniſhment, and from aſſociation they will ſcrupulouſly avoid or follow what has, in any one inſtance, been joined with pain or pleaſure in their imagination: but unfortunately accidental events will influence them, as well as the rewards and puniſhments of their preceptors. We ſhall be ſurpriſed to find, that even where there is apparently no hope, or fear, or paſſion, to diſturb their judgment, they cannot reaſon, or underſtand reaſoning. On ſtudying them more cloſely, we ſhall diſcover the cauſe of this ſeeming imbecility. A multitude of aſſociated ideas occur to them upon whatever ſubject we attempt to reaſon, which diſtract their attention, and make them change the terms of every pro-

poſition with inceſſant variety. Their pleaſures are chiefly ſecondary reflected pleaſures, and they do not judge by their actual ſenſations ſo much as by their aſſociations. They like and diſlike without being able to aſſign any ſufficient cauſe for their preference or averſion. They make a choice frequently without appearing to deliberate, and if you, by perſuading them to a more detailed examination of the objects, convince them, that according to the common ſtandard of good and evil, they have made a fooliſh choice, they will ſtill ſeem puzzled and uncertain; and, if you leave them at liberty, will perſiſt in their original determination. By this criterion we may decide, that they are influenced by ſome ſecret falſe aſſociation of ideas; and, inſtead of arguing with them upon the obvious folly of their preſent choice, we ſhould endeavour to make them trace back their ideas, and diſcover the aſſociation by which they are governed. In ſome caſes this may be out of their power, becauſe the original aſſociation may have been totally forgotten, and yet thoſe connected with it may continue to act; but

even when we cannot ſucceed in any particular inſtance in detecting the cauſe of the error, we ſhall do the pupils material ſervice by exciting them to obſerve their own minds. A tutor, who carefully remarks the circumſtances in which a child expreſſes uncommon grief or joy, hope or fear, may obtain complete knowledge of his aſſociations, and may accurately diſtinguiſh the proximate and remote cauſes of all his pupil's deſires and averſions. He will then have abſolute command over the child's mind, and he ſhould upon no account truſt his pupil to the direction of any other perſon. Another tutor, though perhaps of equal ability, could not be equally ſecure of ſucceſs; the child would probably be ſuſpected of cunning, caprice, or obſtinacy, becauſe the cauſes of his taſtes and judgments could not be diſcovered by his new preceptor.

It often happens, that thoſe who feel pleaſure and pain moſt ſtrongly, are likewiſe moſt diſpoſed to form ſtrong aſſociations of ideas. Children of this character are never ſtupid, but often prejudiced and paſſionate; they can readily

aſſign a reaſon for their preference or averſion; they recollect diſtinctly the original ſenſations of pleaſure or pain, on which their aſſociations depend; they do not, like Mr. Transfer in Zeluco, like or diſlike perſons and things, becauſe they have *been uſed to them*, but becauſe they have received ſome injury or benefit from them. Such children are apt to make great miſtakes in reaſoning, from their regiſtering of coincidences haſtily; they do not wait to repeat their experiments, but if they have in one inſtance obſerved two things to happen at the ſame time, they expect that they will always recur together. If one event precedes or follows another accidentally, they believe it to be the cauſe or effect of its concomitant, and this belief is not to be ſhaken in their minds by ridicule or argument. They are, conſequently, inclined both to ſuperſtition and enthuſiaſm, according as their hopes and fears predominate. They are likewiſe ſubject to abſurd antipathies—antipathies which verge towards inſanity.

Dr. Darwin relates a ſtrong inſtance of antipathy in a child from aſſociation. The child,

on taſting the griſtle of ſturgeon, aſked what griſtle was? and was anſwered, that griſtle was like the diviſion of a man's noſe. The child, diſguſted at this idea, for twenty years afterwards could never be perſuaded to taſte ſturgeon*.

Zimmermann aſſures us, that he was an eye-witneſs of a ſingular antipathy, which we may be permitted to deſcribe in his own words.

"Happening to be in company with ſome "Engliſh gentlemen, all of them men of diſtinc-"tion, the converſation fell upon antipathies. "Many of the company denied their reality, and "conſidered them as idle ſtories, but I aſſured "them that they were truly a diſeaſe. Mr. "William Matthews, ſon to the governor of "Barbadoes, was of my opinion, becauſe he "himſelf had an antipathy to ſpiders. The "reſt of the company laughed at him. I un-"dertook to prove to them that this antipathy "*was really an impreſſion on his ſoul, reſulting* "*from the determination of a mechanical effect.* "(We do not pretend to know what Dr. Zim-

* Zoonomia, vol. ii.

" mermann means by this.) Lord John Mur-
" ray undertook to ſhape ſome black wax into
" the appearance of a ſpider, with a view to
" obſerve whether the antipathy would take
" place at the ſimple figure of the inſect? He
" then withdrew for a moment, and came in
" again with the wax in his hand, which he
" kept ſhut. Mr. Matthews, who in other
" reſpects was a very amiable and moderate
" man, immediately conceiving that his friend
" really had a ſpider in his hand, clapped his
" hand to his ſword with extreme fury, and
" running back towards the partition, cried
" out moſt horribly. All the muſcles of his face
" were ſwelled, his eyes were rolling in their
" ſockets, and his body was immoveable. We
" were all exceedingly alarmed, and immedi-
" ately ran to his aſſiſtance, took his ſword from
" him, and aſſured him that what he conceived
" to be a ſpider was nothing more than a bit of
" wax, which he might ſee upon the table.

" He remained ſome time in this ſpaſmodic
" ſtate; but at length he began to recover, and
" to deplore the horrible paſſion from which he

" ſtill ſuffered. His pulſe was very ſtrong and " quick, and his whole body was covered with " a cold perſpiration. After taking an anodyne " draft, he reſumed his uſual tranquillity."

" We are not to wonder at this antipathy," continues Zimmermann; " the ſpiders at Bar- " badoes are very large, and of an hideous " figure. Mr. Matthews was born there, and " his antipathy was therefore to be accounted " for. Some of the company undertook to " make a little waxen ſpider in his preſence. " He ſaw this done with great tranquillity, but " he could not be perſuaded to touch it, though " he was by no means a timorous man in other " reſpects. Nor would he follow my advice to " endeavour to conquer this antipathy by firſt " drawing parts of ſpiders of different ſorts, and " after a time whole ſpiders, till at length he " might be able to look at portions of real ſpi- " ders, and thus gradually accuſtom himſelf " to whole ones, at firſt dead, and then living " ones."

Dr. Zimmermann's method of cure appears rather more ingenious, than his way of account-

ing for the diſeaſe. Are all the natives of Barbadoes ſubject to convulſions at the ſight of the large ſpiders in that iſland? or why does Mr. George Matthews's having been born there account ſo ſatisfactorily for his antipathy?

The cure of theſe unreaſonable fears of harmleſs animals, like all other antipathies, would, perhaps, be eaſily effected, if it were judiciouſly attempted early in life. The epithets which we uſe in ſpeaking of animals, and our expreſſions of countenance, have great influence on the minds of children. If we, as Dr. Darwin adviſes, call the ſpider *the ingenious ſpider*, and the frog *the harmleſs frog*, and if we look at them with complacency, inſtead of averſion, children, from ſympathy, will imitate our manner, and from curioſity will attend to the animals, to diſcover whether the commendatory epithets we beſtow upon them are juſt.

It is comparatively of little conſequence to conquer antipathies which have trifling objects. An individual can go through life very well without eating ſturgeon, or touching ſpiders; but when we conſider the influence of the ſame

diſpoſition to aſſociate falſe ideas too ſtrongly in more important inſtances, we ſhall perceive the neceſſity of correcting it by education.

Locke tells us of a young man, who, having been accuſtomed to ſee an old trunk in the room with him when he learned to dance, aſſociated his dancing exertions ſo ſtrongly with the ſight of this trunk, that he could not ſucceed by any voluntary efforts in its abſence. We have, in our remarks upon attention, pointed out the great inconveniences to which thoſe are expoſed, who acquire aſſociated habits of intellectual exertion; who cannot ſpeak, or write, or think, without certain habitual aids to their memory or imagination. We muſt farther obſerve, that inceſſant vigilance is neceſſary in the moral education of children diſpoſed to form ſtrong aſſociations; they are liable to ſudden and abſurd diſlikes or predilections, with reſpect to perſons, as well as things; they are ſubject to caprice in their affections and temper, and liable to a variety of mental infirmities, which, in different degrees, we call paſſion or

madneſs. Locke tells us, that he knew a man, who, after having been reſtored to health by a painful operation, had ſo ſtrongly aſſociated the idea and figure of the operator with the agony he had endured, that though he acknowledged the obligation, and felt gratitude towards this friend who had ſaved him, he never afterwards could bear to ſee his benefactor. There are ſome people, who aſſociate ſo readily and incorrigibly the idea of any pain or inſult they have received from another, with his perſon and character, that they can never afterwards forget or forgive. They are hence diſpoſed to all the intemperance of hatred and revenge; to the chronic malice of an Iago, or the acute pangs of an Achilles. Homer, in the ſpeech of Achilles to Agamemnon's mediating ambaſſadors, has drawn a ſtrong and natural picture of the progreſs of anger. It is worth ſtudying as a leſſon in metaphyſics. Whenever aſſociation ſuggeſts to the mind of Achilles the injury he has received, he loſes his reaſon, and the orator works himſelf up from argument to declamation, and from declamation to deſperate

reſolution, through a cloſe linked connexion of ideas and ſenſations.

The inſanities of ambition, avarice, and vanity, originate in early miſtaken aſſociations. A feather, or a crown, or an alderman's chain, or a cardinal's hat, or a purſe of yellow counters, are unluckily aſſociated in the minds of ſome men with the idea of happineſs, and, without ſtaying to deliberate, theſe unfortunate perſons hunt through life the phantaſms of a diſordered imagination. Whilſt we pity, we are amuſed by the blindneſs and blunders of thoſe, whoſe miſtakes can affect no one's felicity but their own; but any deluſions, which prompt their victims to actions inimical to their fellow-creatures, are the objects, not uſually of pity, but of indignation, of private averſion, and public puniſhment. We ſmile at the avaricious inſanity of the miſer, who dreſſes himſelf in the caſt-off wig of a beggar, and who pulls a cruſhed pancake from his pocket for his own and for his friend's dinner*. We ſmile at the inſane vanity of the pauper, who dreſſed

* Elwes. See his Life.

himſelf in a many-coloured paper ſtar, aſſumed the title of Duke of Baubleſhire, and as ſuch required homage from every paſſenger*. But are we inclined to ſmile at the outrageous vanity of the man, who ſtyled himſelf the ſon of Jupiter, and who murdered his beſt friend for refuſing him divine honours? Are we diſpoſed to pity the ſlave-merchant, who, urged by the maniacal deſire for gold, hears unmoved the groans of his fellow-creatures, the execrations of mankind, and that "ſmall ſtill voice," which haunts thoſe who are ſtained with blood?

The moral inſanities which ſtrike us with horror, compaſſion, or ridicule, however they may differ in their effects, have frequently one common origin; an early falſe aſſociation of ideas. Perſons who miſtake in meaſuring their own feelings, or who neglect to compare their ideas, and to balance contending wiſhes, ſcarcely merit the name of *rational* creatures. The man, who does not deliberate, is loſt.

We have endeavoured, though well aware

* There is an account of this poor man's death in the Star, 1796.

of the difficulty of the ſubject, to point out ſome of the precautions that ſhould be uſed in governing the imagination of young people of different diſpoſitions. We ſhould add, that in all caſes the pupil's attention to his own mind will be of more conſequence, than the utmoſt vigilance of the moſt able preceptor; the ſooner he is made acquainted with his own character, and the ſooner he can be excited to govern himſelf by reaſon, or to attempt the cure of his own defects, the better.

There is one habit of the imagination, to which we have not yet adverted, the habit of reverie. In reverie we are ſo intent upon a particular train of ideas, that we are unconſcious of all external objects, and we exert but little voluntary power. It is true that ſome perſons in caſtle-building both reaſon and invent, and therefore muſt exert ſome degree of volition; even in the wildeſt reverie there may be traced ſome ſpecies of conſiſtency, ſome connexion amongſt the ideas; but this is ſimply the reſult of the aſſociation of ideas. Inventive caſtle-builders are rather nearer the ſtate of in-

ſanity than of reverie; they reaſon well upon falſe principles; their airy fabrics are often both in good taſte and in good proportion; nothing is wanting to them but a foundation. On the contrary, nothing can be more filly than the reveries of filly people; they are not only defective in conſiſtency, but they want all the unities; they are not extravagant, but they are ſtupid; they conſiſt uſually of a liſtleſs reiteration of unintereſting ideas; the whole pleaſure enjoyed by thoſe addicted to them conſiſts in the facility of repetition.

It is a miſtaken notion, that only people of ardent imaginations are diſpoſed to reverie; the moſt indolent and ſtupid perſons waſte their exiſtence in this indulgence; they do not act always in conſequence of their dreams, therefore we do not detect their folly. Young people of active minds, when they have not ſufficient occupation, neceſſarily indulge in reverie; and by degrees this wild exerciſe of their invention and imagination becomes ſo delightful to them, that they prefer it to all ſober employments.

Mr. Williams, in his Lectures upon Eduoa-

tion, gives an account of a boy ſingularly addicted to reverie. The deſire of inviſibility had ſeized his mind, and for ſeveral years he had indulged his fancy with imagining all the pleaſures that he ſhould command, and all the feats that he could perform, if he were in poſſeſſion of Gyges's ring. The reader ſhould, however, be informed, that this caſtle-builder was not a youth of ſtrict veracity; his confeſſion upon this occaſion, as upon others, might not have been ſincere. We only ſtate the ſtory from Mr. Williams.

To prevent children from acquiring a taſte for reverie, let them have various occupations both of mind and body. Let us not direct their imagination to extraordinary future pleaſures, but let us ſuffer them to enjoy the preſent. Anticipation is a ſpecies of reverie, and children, who have promiſes of future pleaſures frequently made to them, live in a continual ſtate of anticipation.

To cure the habit of reverie when it has once been formed, we muſt take different methods with different tempers. With thoſe who in-

dulge in the *ſtupid reverie*, we ſhould employ ſtrong excitations, and preſent to the ſenſes a rapid ſucceſſion of objects, which will completely engage without fatiguing them. This mode muſt not be followed with children of different diſpoſitions, elſe we ſhould increaſe inſtead of curing the diſeaſe. The moſt likely method to break this habit in children of great quickneſs or ſenſibility, is to ſet them to ſome employment which is wholly new to them, and which will conſequently exerciſe and exhauſt all their faculties, ſo that they ſhall have *no life* left for caſtle-building. Monotonous occupations, ſuch as copying, drawing, or writing, playing on the harpſichord, &c. are not, *if habit has made them eaſy* to the pupil, fit for our purpoſe. We may all perceive, that in ſuch occupations the powers of the mind are left unexerciſed. We can frequently read aloud with tolerable emphaſis for a conſiderable time together, and at the ſame time think upon ſome ſubject foreign to the book we hold in our hands.

The moſt difficult exerciſes of the mind, ſuch

as invention, or ſtrict reaſoning, are thoſe alone which are ſufficient to ſubjugate and chain down the imagination of ſome active ſpirits. To ſuch laborious exerciſes they ſhould be excited by the encouraging voice of praiſe and affection. Imaginative children will be more diſpoſed to invent than to reaſon, but they cannot perfect any invention without reaſoning; there will, therefore, be a mixture of what they like and diſlike in the exerciſe of invention, and the habit of reaſoning will, perhaps, gradually become agreeable to them, if it be thus dexterouſly united with the pleaſures of the imagination.

So much has already been written by various authors upon the pleaſures and the dangers of imagination, that we could ſcarcely hope to add any thing new to what they have produced: but we have endeavoured to arrange the obſervations which appeared moſt applicable to practical education; we have pointed out how the principles of taſte may be early taught without injury to the general underſtanding, and how the imagination ſhould be prepared for the

higher pleaſures of eloquence and poetry. We have attempted to define the boundaries between the enthuſiaſm of genius, and its extravagance; and to ſhew ſome of the precautions which may be uſed, to prevent the moral defects to which perſons of ardent imagination are uſually ſubject. The degree in which the imagination ſhould be cultivated muſt, we have obſerved, be determined by the views which parents may have for their children, by their ſituations in ſociety, and by the profeſſions for which they are deſtined. The homely proverb, which has been applied to fire, may with equal truth be applied to imagination: "It is a good "ſervant, but a bad maſter."

CHAPTER XXIII.

ON WIT AND JUDGMENT.

IT has been ſhewn, that the powers of memory, invention, and imagination, ought to be rendered ſubſervient to judgment: it has been ſhewn, that reaſoning and judgment abridge the labours of memory, and are neceſſary to regulate the higheſt flights of imagination. We ſhall now conſider the power of reaſoning in another point of view, as being eſſential to our conduct in life. The object of reaſoning is to adapt means to an end, to attain the command of effects by the diſcovery of the cauſes on which they depend.

Until children have acquired ſome know-

ledge of effects, they cannot inquire into cauſes. Obſervation muſt precede reaſoning; and as judgment is nothing more than the perception of the reſult of compariſon, we ſhould never urge our pupils to judge, until they have acquired ſome portion of experience.

To teach children to compare objects exactly, we ſhould place the things to be examined diſtinctly before them. Every thing that is ſuperfluous ſhould be taken away, and a ſufficient motive ſhould be given to excite the pupil's attention. We need not here repeat the advice that has formerly been given reſpecting the choice of proper motives to excite and fix attention; or the precautions neceſſary to prevent the pain of fatigue, and of unſucceſsful application. If compariſon be early rendered a taſk to children, they will diſlike and avoid this exerciſe of the mind, and they will conſequently ſhew an inaptitude to reaſon: if comparing objects be made intereſting and amuſing to our pupils, they will ſoon become expert in diſcovering reſemblances and differences; and thus they will be prepared for reaſoning.

Rouſſeau has judiciouſly adviſed, that *the ſenſes* of children ſhould be cultivated with the utmoſt care. In proportion to the diſtinctneſs of their perceptions will be the accuracy of their memory, and, probably, alſo the preciſion of their judgment. A child, who ſees imperfectly, cannot reaſon juſtly about the objects of ſight, becauſe he has not ſufficient data. A child, who does not hear diſtinctly, cannot judge well of ſounds; and, if we could ſuppoſe the ſenſe of touch to be twice as accurate in one child as in another, we might conclude, that the judgment of theſe children muſt differ in a ſimilar proportion. The defects in organization are not within the power of the preceptor; but we may obſerve, that inattention, and want of exerciſe, are frequently the cauſes of what are miſtaken for natural defects; and, on the contrary, increaſed attention and cultivation ſometimes produce that quickneſs of eye and ear, and that conſequent readineſs of judgment, which we are apt to attribute to natural ſuperiority of organization or capacity. Even amongſt children we may early obſerve a con-

ſiderable difference between the quickneſs of their ſenſes and of their reaſoning upon ſubjects where they have had experience, and upon thoſe on which they have not been exerciſed.

The firſt exerciſes for the judgment of children ſhould, as Rouſſeau recommends, relate to viſible and tangible ſubſtances. Let them compare the ſize and ſhape of different objects; let them frequently try what they can lift; at what diſtance they can ſee objects; at what diſtance they can hear ſounds: by theſe exerciſes they will learn to judge of diſtances and weight; and they may learn to judge of the ſolid contents of bodies of different ſhapes, by comparing the obſervations of their ſenſe of feeling and of ſight. The meaſure of hollow bodies can be eaſily taken by pouring liquids into them, and then comparing the quantities of the liquids that fill veſſels of different ſhapes. This is a ſimple method of exerciſing the judgment of children; and, if they are allowed to try theſe little experiments for themſelves, the amuſement will fix the facts in their memory,

and will aſſociate pleaſure with the habits of compariſon. Rouſſeau rewards Emilius with cakes when he judges rightly; ſucceſs, we think, is a better reward. Rouſſeau was himſelf childiſhly fond of cakes and cream.

The ſtep which immediately follows compariſon, is deduction. The cat is larger than the kitten; then a hole through which the cat can go, muſt be larger than a hole through which the kitten can go. Long before a child can put this reaſoning into words, he is capable of forming the concluſion, and we need not be in haſte to make him announce it in mode and figure. We may ſee by the various methods which young children employ to reach what is above them, to drag, to puſh, to lift different bodies, that they reaſon; that is to ſay, that they adapt means to an end, before they can explain their own deſigns in words. Look at a child building a houſe of cards: he dexterouſly balances every card as he floors the edifice; he raiſes ſtory over ſtory, and ſhews us that he has ſome deſign in view, though he would be utterly incapable of deſcribing his in-

tentions previouſly in words. We have formerly endeavoured to ſhew how the vocabulary of our pupils may be gradually enlarged, exactly in proportion to their real knowledge. A great deal depends upon our attention to this proportion; if children have not a ſufficient number of words to make their thoughts intelligible, we cannot aſſiſt them to reaſon by our converſation, we cannot communicate to them the reſult of our experience; they will have a great deal of uſeleſs labour in comparing objects, becauſe they will not be able to underſtand the evidence of others, as they do not underſtand their language; and at laſt, the reaſonings which they carry on in their own minds will be confuſed for want of ſigns to keep them diſtinct. On the contrary, if their vocabulary exceed their ideas, if they are taught a variety of words to which they connect no accurate meaning, it is impoſſible that they ſhould expreſs their thoughts with preciſion. As this is one of the moſt common errors in education, we ſhall dwell upon it more particularly.

We have pointed out the miſchief which is

done to the underſtanding of children by the nonſenſical converſation of common acquaintance. "Should you like to be a king? What "are you to be? Are you to be a biſhop, or a "judge? Had you rather be a general, or an "admiral, my little dear?" are ſome of the queſtions which every one has probably heard propoſed to children of five or ſix years old. Children who have not learned by rote the expected anſwers to ſuch interrogatories, ſtand in amazed ſilence upon theſe occaſions; or elſe anſwer at random, having no poſſible means of forming any judgment upon ſuch ſubjects. We have often thought, in liſtening to the converſations of grown up people with children, that the children reaſoned infinitely better than their opponents. People, who are not intereſted in the education of children, do not care what arguments they uſe, what abſurdities they utter in talking to them; they uſually talk to them of things which are totally above their comprehenſion; and they inſtill error and prejudice, without the ſmalleſt degree of compunction; or rather, without in the leaſt knowing what they

are about. We earneſtly repeat our advice to parents, to keep their children as much as poſſible from ſuch converſation: children will never reaſon if they are frequently allowed to hear or to talk nonſenſe. Unleſs they have been in the habit of hearing fooliſh converſation, they very ſeldom talk nonſenſe. They may expreſs themſelves in a manner which we do not underſtand, or they may make miſtakes from not accurately comprehending the words of others; but in theſe caſes we ſhould not reprove or ſilence them, we ſhould patiently endeavour to find out their hidden meaning. If we rebuke or ridicule them, we ſhall intimidate them, and either leſſen their confidence in themſelves or in us. In the one caſe we prevent them from thinking, in the other we deter them from communicating their thoughts; and thus we preclude ourſelves from the poſſibility of aſſiſting them in reaſoning. To ſhow parents the nature of the miſtakes which children make from their imperfect knowledge of words, we ſhall give a few examples from real life.

S——, at five years old, when he heard ſome

one ſpeak of *bay* horſes, ſaid, he ſuppoſed that a bay horſe muſt be *the beſt*. Upon croſs queſtioning him, it appeared that he was led to this concluſion by the analogy between the ſound of the words *bay* and *obey*. A few days previous to this his father had told him, that ſpirited horſes were always the moſt ready to obey.

Theſe erroneous analogies between the ſound of words and their ſenſe frequently miſlead children in reaſoning; we ſhould, therefore, encourage children to explain themſelves fully, that we may rectify their errors.

When S—— was between four and five years old, a lady who had taken him upon her lap playfully, put her hands before his eyes, and (we believe) aſked if he liked to be blinded. S—— ſaid no; and he looked very thoughtful. After a pauſe, he added, "Smellie ſays, "that children like better to be blinded than "to have their legs tied." (S—— had read this in Smellie two or three days before.)

Father. "Are you of Smellie's opinion?"

S—— heſitated.

Father. "Would you rather be blinded, or have your legs tied?"

S——. "I would rather have my legs tied "not quite tight."

Father. "Do you know what is meant by "*blinded?*"

S——. "Having their eyes put out."

Father. "How do you mean?"

S——. "To put ſomething into the eye to "make the blood burſt out; and then the blood "would come all over it, and cover it, and "ſtick to it, and hinder them from ſeeing, I "don't know how."

It is obvious, that whilſt this boy's imagination pictured to him a bloody orb when he heard the word *blinded*, he was perfectly right in his reaſoning in preferring to have his legs tied; but he did not judge of the propoſition meant to be laid before him; he judged of another which he had formed for himſelf. His father explained to him, that Smellie meant blindfolded, inſtead of blinded; a handkerchief was then tied round the boy's head ſo as hinder him from ſeeing, and he was made per-

fectly to underſtand the meaning of the word *blindfolded.*

In ſuch trifles as theſe it may appear of little conſequence to rectify the verbal errors of children; but exactly the ſame ſpecies of miſtake will prevent them from reaſoning accurately in matters of conſequence. It will not coſt us much trouble to detect theſe miſtakes when the cauſes of them are yet recent; but it will give us infinite trouble to retrace thoughts which have paſſed in infancy. When prejudices, or the habits of reaſoning inaccurately, have been formed, we cannot eaſily diſcover or remedy the remote trifling origin of the evil.

When children begin to inquire about cauſes, they are not able to diſtinguiſh between coincidence and cauſation; we formerly obſerved the effect which this ignorance produces upon their temper; we muſt now obſerve its effect upon their underſtanding. A little reflection upon our own minds will prevent us from feeling that ſtupid amazement, or from expreſſing that inſulting contempt, which the natural thoughts of children ſometimes excite in per-

ſons, who have frequently leſs underſtanding than their pupils. What account can we give of the connexion between cauſe and effect? How is the idea, that one thing is the cauſe of another, firſt produced in our minds? All that we know is, that amongſt human events thoſe which precede are, in ſome caſes, ſuppoſed to produce what follow. When we have obſerved, in ſeveral inſtances, that one event conſtantly precedes another, we believe, and expect, that theſe events will in future recur together. Before children have had experience, it is ſcarcely poſſible that they ſhould diſtinguiſh between fortuitous circumſtances and cauſation; accidental coincidences of time, and juxta-poſition, continually lead them into error. We ſhould not accuſe children of reaſoning ill, we ſhould not imagine that they are defective in judgment, when they make miſtakes from deficient experience; we ſhould only endeavour to make them delay to decide until they have repeated their experiments; and, at all events, we ſhould encourage them to lay open their

hen

ound, it

ch

The way to improve children in their judgment with reſpect to cauſation, is to increaſe their knowledge, and to lead them to try experiments by which they may diſcover what circumſtances are eſſential to the production of any given effect, and what are merely acceſſory, unimportant concomitants of the event*.

A child, who for the firſt time ſees blue and red paints mixed together to produce purple, could not be certain that the pallet on which theſe colours were mixed, the ſpatula with which they were tempered, were not neceſſary circumſtances. In many caſes the veſſels in which things are mixed are eſſential; therefore, a ſenſible child would repeat the experiment exactly in the ſame manner in which he had ſeen it ſucceed. This exactneſs ſhould not be ſuffered to become indolent imitation, or ſuperſtitious adherence to particular forms. Children ſhould be excited to add or deduct particulars in trying experiments, and to obſerve the effects in theſe changes. In "Chemiſtry," and "Mechanics," we have pointed out a variety

* V. Stewart.

of occupations, in which the judgment of children may be exercised upon the immediate objects of their senses.

It is natural, perhaps, that we should expect our pupils to shew surprise at those things, which excite surprize in our minds; but we should consider, that almost every thing is new to children, and therefore there is scarcely any gradation in their astonishment. A child of three or four years old would be as much amused, and, probably, as much surprised, by seeing a paper kite fly, as he could be by beholding the ascent of a balloon. We should not attribute this to stupidity or want of judgment, but simply to ignorance.

A few days ago W——— (three years old), who was learning his letters, was let to sow an *o* in the garden with mustard seed. W——— was much pleased with the operation. When the green plants appeared above ground, it was expected that W——— would be much surprised at seeing the exact shape of his *o*. He was taken to look at it; but he shewed no surprize, no sort of emotion.

We have adviſed, that the judgment of children ſhould be exerciſed upon the objects of their ſenſes. It is ſcarcely poſſible, that they ſhould reaſon upon the ſubjects which are ſometimes propoſed to them; with reſpect to manners and ſociety, they have had no experience, conſequently they *can* form no judgments. By imprudently endeavouring to turn the attention of children to converſation that is unſuited to them, people may give the *appearance* of early intelligence, and a certain readineſs of repartee and fluency of expreſſion; but theſe are tranſient advantages. Smart, witty children amuſe the circle for a few hours, and are forgotten; and we may obſerve, that almoſt all children who are praiſed and admired for ſprightlineſs and wit, reaſon abſurdly, and continue ignorant. Wit and judgment depend upon different and oppoſite habits of the mind. Wit ſearches for remote reſemblances between objects or thoughts apparently diſſimilar. Judgment compares the objects placed before it, in order to find out their differences rather than their reſemblances. The compariſons of judg-

ment may be ſlow; thoſe of wit muſt be rapid. The ſame power of attention in children may produce either wit or judgment. Parents muſt decide in which faculty, or rather, in which of theſe habits of the mind, they wiſh their pupils to excel; and they muſt conduct their education accordingly. Thoſe who are deſirous to make their pupils witty, muſt ſacrifice ſome portion of their judgment to the acquiſition of the talent for wit; they muſt allow their children to talk frequently at random. Amongſt a multitude of hazarded obſervations a happy hit is now and then made: for theſe happy hits children who are to be made wits ſhould be praiſed; and they muſt acquire ſufficient courage to ſpeak from a curſory view of things; therefore the miſtakes they make from ſuperficial examination muſt not be pointed out to them; their attention muſt be turned to the comic, rather than to the ſerious ſide of objects; they muſt ſtudy the different meanings and powers of words; they ſhould hear witty converſation, read epigrams, and comedies: and in all company they ſhould be exerciſed

before numbers in ſmart dialogue and repartee.

When we mention the methods of educating a child to be witty, we at the ſame time point out the dangers of this education: and it is but juſt to warn parents againſt expecting inconſiſtent qualities from their pupils. Thoſe who ſteadily prefer the ſolid advantages of judgment, to the tranſient brilliancy of wit, ſhould not be mortified when they ſee their children, perhaps, deficient at nine or ten years old in the ſhowy talents for general converſation; they muſt bear to ſee their pupils appear ſlow; they muſt bear the contraſt of flippant gaiety and ſober ſimplicity; they muſt purſue exactly an oppoſite courſe to that which has been recommended for the education of wits; they muſt never praiſe their pupils for hazarding obſervations; they muſt cautiouſly point out any miſtakes that are made from a precipitate ſurvey of objects; they ſhould not harden their pupils againſt that feeling of ſhame, which ariſes in the mind from the perception of having uttered an abſurdity; they ſhould never

encourage their pupils to play upon words; and their admiration of wit ſhould never be vehemently or enthuſiaſtically expreſſed.

We ſhall give a few examples to convince parents, that children, whoſe reaſoning powers have been cultivated, are rather ſlow in comprehending and in admiring wit. They require to have it explained, they want to ſettle the exact juſtice and morality of the repartee, before they will admire it.

(November 20th, 1795.) To day at dinner the converſation happened to turn upon wit. Somebody mentioned the well known reply of the hackney coachman to Pope. S——, a boy of nine years old, liſtened attentively, but did not ſeem to underſtand it, his father endeavoured to explain it to him. "Pope was a "little ill made man; his favourite exclama- "tion was, 'God mend me!' Now, when he "was in a paſſion with the hackney coachman, "he cried as uſual, 'God mend me!' 'Mend "*you*, Sir,' ſaid the coachman: 'it would be "eaſier to make a new one.' Do you under- "ſtand this now, S——?"

S—— looked dull upon it, and, after ſome minutes conſideration, ſaid, "Yes, Pope was "ill made; the man meant it would be better "to make a new one than to mend him." S—— did not yet ſeem to taſte the wit; he took the anſwer literally, and underſtood it ſoberly.

Immediately afterwards, the officer's famous reply to Pope was told to S——. About ten days after this converſation, S—— ſaid to his ſiſter, "I wonder, M——, that people don't oftener "laugh at crooked people: like the "officer who called Pope a note of interroga-"tion."

M———. "It would be ill natured to laugh "at them."

S———. "But you all praiſed that man for "ſaying *that* about Pope. You did not think "him ill natured."

Mr. ———. "No, becauſe Pope had been "impertinent to him."

S———. "How?"

M———. "Don't you remember, that "when the officer ſaid that a note of interro-

"gation would make the paſſage clear, Pope "turned round, and looking at him with great "contempt, aſked if he knew what a note of "interrogation was?"

S———. "Yes, I remember that; but I "do not think that was very impertinent, be- "cauſe Pope might not know whether the "man knew it or not."

Mr. ———. "Very true; but then you "ſee, that Pope took it for granted that the "officer was extremely ignorant; a boy who "is juſt learning to read knows what a note of "interrogation is."

S——— (thoughtfully). "Yes, it *was* rude "of Pope; but then the man was an officer, "and therefore, it was very likely that he "might be ignorant; you know you ſaid that "officers were often very ignorant."

Mr. ———. "I ſaid *often*; but not *always*. "Young men, I told you, who are tired of "books, and ambitious of a red coat, often "go into the army to ſave themſelves the trou- "ble of acquiring the knowledge neceſſary for "other profeſſions. A man cannot be a good

"lawyer, or a good phyſician, without having "acquired a great deal of knowledge; but an "officer need have little knowledge to know "how to ſtand to be ſhot at. But though it "may be true in general that officers are often "ignorant, it is not neceſſary that they ſhould "be ſo; a man in a red coat may have as "much knowledge as a man in a black, or a "blue one; therefore no ſenſible perſon ſhould "decide that a man is ignorant merely becauſe "he is an officer, as Pope did."

S———. "No to be ſure. I underſtand "now."

M———. "But I thought, S———, you "underſtood this before."

Mr. ———. "He is very right not to let "it paſs without underſtanding it thoroughly. "You are very right, S———, not to ſwallow "things whole; chew them well."

S——— looked as if he was ſtill chewing.

M———. "What are you thinking of, "S———?"

S——. "Of the man's laughing at Pope "for being crooked."

Mr. ——. "If Pope had not ſaid any thing "rude to that man, the man would have done "very wrong to have laughed at him. If the "officer had walked into a coffee-houſe, and "pointing at Pope, had ſaid, 'there's a little "crooked thing like a note of interrogation,' "people might have been pleaſed with his wit "in ſeeing that reſemblance, but they would "have diſliked his ill nature; and thoſe who "knew Mr. Pope would probable have an-"ſwered, Yes, Sir, but that crooked little man "is one of the moſt witty men in England; he "is the great poet, Mr. Pope.' But when Mr. "Pope had inſulted the officer the caſe was "altered. Now, if the officer had ſimply an-"ſwered, when he was aſked what a note of "interrogation was, 'a little crooked thing;' "and if he had looked at Pope from head to "foot as he ſpoke theſe words, every body's "attention would have been turned upon "Pope's figure; but then the officer would "have reproached him only for his perſonal "defects; but by ſaying, 'a little crooked "thing *that aſks queſtions*,' the officer reproved

"Pope for his impertinence. Pope had juſt "aſked him a queſtion, and every body per- "ceived the double application of the anſwer. "It was an exact deſcription of a note of inter- "rogation, and of Mr. Pope. It is this ſort "of partial reſemblance quickly pointed out "between things, which at firſt appear very "unlike, that ſurpriſes and pleaſes people, and "they call it wit."

How difficult it is to explain wit to a child! and how much more difficult to fix its value and morality! About a month after this converſation had paſſed, S—— returned to the charge: his mind had not been completely ſettled about *wit*.

(January 9th, 1796.) "So, S——, you don't "yet underſtand wit, I ſee," ſaid M—— to him, when he looked very grave at ſomething that was ſaid to him in jeſt. S—— immediately aſked, "What *is* wit?"

M—— anſwered (laughing), "Wit is the "folly of grown up people."

Mr. ——. "How can you give the boy "ſuch an anſwer! Come to me, my dear,

"and I'll try if I can give you a better. There "are two kinds of wit, one which depends upon "words, and another which depends upon "thoughts. I will give you an inſtance of wit "depending upon words:

"Hear yonder beggar, how he cries
"I am ſo lame, I cannot riſe!
"If he tells truth, he lies."

"Do you underſtand that?"

S——. "No! If he tells truth he lies! "No, he can't both tell truth and tell a lie at "the ſame time; that's impoſſible."

Mr. ——. "Then there is ſomething in the "words which you don't underſtand: in the "*common* ſenſe of the words they contradict "each other; but try if you can find out "any uncommon ſenſe, any word which can "be underſtood in two ſenſes."

S—— muttered the words, "if he tells truth "he lies," and looked indignant, but preſently ſaid, "Oh, now I underſtand; the beggar was "lying down; he lies, means he lies down, not "he tells a lie."

The perception of the double meaning of the

words did not ſeem to pleaſe this boy; on the contrary, it ſeemed to provoke him, and he appeared to think that he had waſted his time upon the diſcovery.

Mr. ——. "Now I will give you an inſtance "of wit that depends upon the ideas rather "than on the words. A man of very bad cha- "racter had told falſehoods of another, who "then made theſe two lines:

"Lie on, whilſt my revenge ſhall be,
"To tell the very truth of thee."

S—— approved of this immediately, and heartily, and recollected the only epigram he knew by rote, one which he had heard in converſation two or three months before this time. It was made upon a tall ſtupid man, who had challenged another to make an epigram extempore upon him.

"Unlike to Robinſon ſhall be my ſong;
"It ſhall be witty, and it ſhan't be long."

At the time S—— firſt heard this epigram, he had been as ſlow in comprehending it as poſſible; but after it had been thoroughly ex-

plained, it pleaſed him, and remained fixed in his memory.

Mr. —— obſerved, that this epigram contained wit both in words and in ideas; and he gave S—— one other example. "There were "two contractors; I mean people who make a "bargain with government, or with thoſe who "govern the country, to ſupply them with "certain things at a certain price; there were "two contractors, one of whom was employed "to ſupply government with corn, the other "agreed to ſupply government with rum. "Now, you know, corn may be called grain, "and rum may be called ſpirit. Both theſe "contractors cheated in their bargain; both "their names were the ſame; and the follow-"ing epigram was made on them.

"Both of a name, lo! two contractors come;
"One cheats in corn, and t'other cheats in rum.
"Which is the greater, if you can, explain,
"A rogue in ſpirit, or a rogue in grain?"

"*Spirit*," continued Mr. ——, "has another "ſenſe, you know—will, intention, ſoul; he "has the ſpirit of a rogue; ſhe has the ſpirit of "contradiction. And grain has alſo another

"meaning; the grain of this table, the grain of "your coat. Dyed in grain, means dyed into "the ſubſtance of the material ſo that the dye "can't be waſhed out. A rogue in grain, "means a man whoſe habit of cheating is fixed "in his mind: and it is difficult to determine "which is the worſt, a man who has the wiſh, "or a man who has the habit of doing wrong. "At firſt it ſeems as if you were only aſked "which was the worſt, to cheat in ſelling grain, "or in ſelling ſpirit; but the concealed mean-"ing makes the queſtion both ſenſe and wit."

Theſe detailed examples we fear may appear tireſome; but we know not how without them to explain ourſelves fully. We ſhould add for the conſolation of thoſe who admire wit, and we are amongſt the number ourſelves, that it is much more likely that wit ſhould be engrafted upon judgment, than that judgment ſhould be engrafted upon wit.

We hope that we have, in the chapter on books, fully explained the danger of accuſtoming children to read what they do not underſtand. Poetry they cannot early comprehend,

and even if they do underſtand it, they cannot improve their reaſoning faculty by poetic ſtudies. The analogies of poetry and of reaſoning are very different. " The muſe," ſays an excellent judge upon this ſubject, " would make " but an indifferent ſchool-miſtreſs." We include under the head poetry all books in which declamation and eloquence are ſubſtituted for reaſoning. We ſhould accuſtom our pupils to judge ſtrictly of the reaſoning which they meet with in books; no names of high authority ſhould ever preclude an author's arguments from examination.

The following paſſage from St. Pierre's Etudes de la Nature was read to two boys: H——, 14 years old; S——, 10 years old.

" Hurtful inſects preſent (the ſame) oppo- " ſitions and ſigns of deſtruction; the gnat, " thirſty of human blood, announces himſelf to " our ſight by the white ſpots with which his " brown body is ſpeckled; and by the ſhrill " ſound of his wings, which interrupts the calm " of the groves, he announces himſelf to our " ear as well as to our eye. The carnivorous

" waſp is ſtreaked like the tiger, with bands of " black over a yellow ground."

H—— and S—— both at once exclaimed, that theſe ſpots in the gnat, and ſtreaks in the waſp, had nothing to do with their ſtinging us. " The buzzing of the gnat," ſaid S——, " would, I think, be a very agreeable ſound to " us, if we did not know that the gnat would " ſting, and that it was coming near us; and, " as to the waſp, I remember ſtopping one day " upon the ſtairs to look at the beautiful black " and yellow body of a waſp. I did not think " of danger, nor of it's ſtinging me then, and " I did not know that it was like the tiger. " After I had been ſtung by a waſp, I did not " think a waſp ſuch a beautiful animal. I " think it is very often from our knowing that " animals can hurt us, that we think them ugly. " We might as well ſay," continued S——, pointing to a crocus which was near him, " we " might as well ſay, that a man who has a yel- " low face has the ſame diſpoſition as that cro- " cus, or that the crocus is in every thing like " the man, becauſe it is yellow."

Cicero's "curious conſolation for deafneſs" is properly noticed by Mr. Hume. It was read to S—— a few days ago, to try whether he could detect the ſophiſtry: he was not previouſly told what was thought of it by others.

"How many languages are there," ſays Cicero, "which you do not underſtand! The Pu-"nic, Spaniſh, Gallic, Egyptian, &c. With "regard to all theſe you are as if you were deaf, "and yet you are indifferent about the matter. "Is it then ſo great a misfortune to be deaf to "one language more?"

"I don't think," ſaid S——, "that was "at all a good way to conſole the man, becauſe "it was putting him in mind that he was more "deaf than he thought he was. He did not "think of thoſe languages, perhaps, till he was "put in mind that he could not hear them."

In ſtating any queſtion to a child, we ſhould avoid letting our own opinion be known, leſt we lead or intimidate his mind. We ſhould alſo avoid all appearance of anxiety, all impatience for the anſwer; our pupil's mind ſhould be in a calm ſtate when he is to judge: if we

turn his ſympathetic attention to our hopes and fears, we agitate him, and he will judge by our countenances rather than by comparing the objects or propoſitions which are laid before him. Some people, in arguing with children, teach them to be diſingenuous by the uncandid manner in which they proceed; they ſhow a deſire for victory rather than for truth; they ſtate the arguments only on their own ſide of the queſtion, and they will not allow the force of thoſe which are brought againſt them. Children are thus piqued, inſtead of being convinced, and in their turn they become zealots in ſupport of their own opinions; they hunt only for arguments in their own favour, and they are mortified when a good reaſon is brought on the oppoſite ſide of the queſtion to that on which they happen to have enliſted. To prevent this we ſhould never argue, or ſuffer others to argue for victory with our pupils; we ſhould not praiſe them for their cleverneſs in finding out arguments in ſupport of their own opinion; but we ſhould praiſe their candour and good ſenſe when they perceive and acknowledge the force of

their opponent's arguments. They ſhould not be exerciſed as advocates, but as judges; they ſhould be encouraged to keep their minds impartial, to ſum up the reaſons which they have heard, and to form their opinion from theſe without regard to what they may have originally aſſerted. We ſhould never triumph over children for changing their opinion. "I thought "you were on *my* ſide of the queſtion; or, I "thought you were on the other ſide of the "queſtion juſt now!" is ſometimes tauntingly ſaid to an ingenuous child, who changes his opinion when he hears a new argument. You think it a proof of his want of judgment, that he changes his opinion. Do you think it a proof that your ſcales are bad, becauſe they vibrate with every additional weight that is added to either ſide?

Idle people ſometimes amuſe themſelves with trying the judgment of children, by telling them improbable, extravagant ſtories, and then aſk the ſimple liſteners whether they believe what has been told them. The readineſs of belief in children will always be proportioned to their

experience of the veracity of thoſe with whom they converſe; conſequently children, who live with thoſe who ſpeak truth to them, will ſcarcely ever be inclined to doubt the veracity of ſtrangers. Such trials of the judgment of our pupils ſhould never be permitted. Why ſhould the example of lying be ſet before the honeſt minds of children, who are far from ſilly when they ſhew ſimplicity? They guide themſelves by the beſt rules, by which even a philoſopher in ſimilar circumſtances could guide himſelf. The things aſſerted are extraordinary, but the children believe them, becauſe they have never had any experience of the falſehood of human teſtimony.

The Socratic mode of reaſoning is frequently practiſed upon children. People arrange queſtions artfully, ſo as to bring them to whatever concluſion they pleaſe. In this mode of reaſoning much depends upon getting the firſt move; the child has very little chance of having it, his preceptor uſually begins firſt with a peremptory voice, "Now anſwer me this queſtion!" The pupil, who knows that the interrogatories are

put with a deſign to entrap him, is immediately alarmed, and inſtead of giving a direct candid anſwer to the queſtion, is always looking forward to the poſſible conſequences of his reply; or he is conſidering how he may evade the ſnare that is laid for him. Under theſe circumſtances he is in imminent danger of learning the ſhuffling habits of cunning; he has little chance of learning the nature of open, manly inveſtigation.

Preceptors, who imagine that it is neceſſary to put on very grave faces, and to uſe much learned apparatus in teaching the art of reaſoning, are not nearly ſo likely to ſucceed as thoſe are, who have the happy art of encouraging children to lay open their minds freely, and who can make every pleaſing trifle an exerciſe for the underſtanding. If it be playfully pointed out to a child that he reaſons ill, he ſmiles and corrects himſelf; but you run the hazard of making him poſitive in error, if you reprove or ridicule him with ſeverity. It is better to ſeize the ſubjects that accidentally ariſe in converſa-

tion, than formally to prepare ſubjects for diſcuſſion.

"The king's ſtag hounds," (ſays Mr. White of Selborne, in his entertaining obſervations on quadrupeds*,) the king's ſtag hounds "came "down to Alton, attended by a huntſman and ſix "yeoman prickers with horns, to try for the ſtag "that has haunted Hartley-wood and its envi-"rons for ſo long a time. Many hundreds of "people, horſe and foot, attended the dogs to "ſee the deer unharboured; but though the "huntſman drew Hartley-wood, and Long-"coppice, and Shrub-wood, and Temple-hang-"ers, and in their way back, Hartley, and "Ward-le-ham-hangers, yet no ſtag could be "found.

"The royal pack, *accuſtomed to have the "deer turned out before them, never drew the "coverts with any addreſs and ſpirit*," &c.

Children, who are accuſtomed to have the game ſtarted and turned out before them by their

* A Naturaliſt's Calendar by the late Rev. Gilbert White, M. A. publiſhed by Dr. Aikin, printed for B. and J. White, Fleet-Street.

preceptors, may perhaps, like the royal pack, loſe their wonted addreſs and ſpirit, and may be diſgracefully *at a fault* in the public chace. Preceptors ſhould not help their pupils out in argument, they ſhould excite them to explain and ſupport their own obſervations.

Many ladies ſhew in general converſation the powers of eaſy raillery joined to reaſoning, unincumbered with pedantry. If they would employ theſe talents in the education of their children, they would probably be as well repaid for their exertions, as they can poſſibly be by the polite, but tranſient applauſe, of the viſitors to whom they uſually devote their powers of entertaining. A little praiſe or blame, a ſmile from a mother, or a frown, a moment's attention, or a look of cold neglect, have the happy, or the fatal power of repreſſing or of exciting the energy of a child, of directing his underſtanding to uſeful or pernicious purpoſes. Scarcely a day paſſes in which children do not make ſome attempt to reaſon about the little events which intereſt them, and upon theſe occaſions a mother, who joins in converſation

with her children, may inſtruct them in the art of reaſoning without the parade of logical diſquiſitions.

Mr. Locke has done mankind an eſſential ſervice, by the candid manner in which he has ſpoken of ſome of the learned forms of argumentation. A great proportion of ſociety, he obſerves, are unacquainted with theſe forms, and have never heard the name of Ariſtotle; yet without the aid of ſyllogiſms, they can reaſon ſufficiently well for all the uſeful purpoſes of life, often much better than thoſe who have been diſciplined in the ſchools. It would indeed "be putting one man ſadly over the head of "another," to confine the reaſoning faculty to the diſciples of Ariſtotle, to any ſect or ſyſtem, or to any forms of diſputation. Mr. Locke has very clearly ſhewn, that ſyllogiſms do not aſſiſt the mind in the perception of the agreement or diſagreement of ideas; but, on the contrary, that they invert the natural order in which the thoughts ſhould be placed, and in which they muſt be placed, before we can draw a juſt concluſion. To children who are not familiariſed

with ſcholaſtic terms, the ſound of harſh words, and quaint language, unlike any thing that they hear in common converſation, is alone ſufficient to alarm their imagination with ſome confuſed apprehenſion of difficulty. In this ſtate of alarm they are ſeldom ſufficiently maſters of themſelves, either to deny or to acknowledge an adept's major, minor, or concluſion. Even thoſe who are moſt expert in ſyllogiſtical reaſoning do not often apply it to the common affairs of life, in which reaſoning is juſt as much wanted as it is in the abſtract queſtions of philoſophy: and many argue, and conduct themſelves with great prudence and preciſion, who might, perhaps, be caught on the horns of a dilemma, or who would infallibly fall victims to *the crocodile*.

Young people ſhould not be ignorant, however, of theſe boaſted forms of argumentation; and it may, as they advance in the knowledge of words, be a uſeful exerciſe to reſiſt the attacks of ſophiſtry. As defenſive weapons, it is neceſſary, that young people ſhould have the command of logical terms; as offenſive wea-

pons, no ingenuous perſon would wiſh to teach a child to employ them. They ſhould know the evolutions, and be able to perform the exerciſe of a logician, according to the cuſtom of the times, according to the uſage of different nations; but they ſhould not attach any undue importance to this technical art; nor ſhould they truſt to it in the day of battle.

We have ſeen ſyllogiſms, crocodiles, enthimemas, ſorites, &c. explained and tried upon a boy of nine or ten years old in playful converſation, ſo that he became accuſtomed to the terms without learning to be pedantic in the abuſe of them; and his quickneſs in reaſoning was increaſed by exerciſe in detecting puerile ſophiſms: ſuch as that of *the Cretans*—Gorgias and his bargain about the winning of his firſt cauſe. In the following ſorites* of Themiſtocles—"My ſon commands his mother; his "mother commands me; I command the Athe-"nians; the Athenians command Greece; "Greece commands Europe; Europe com-

* V. Deinology; where there are many entertaining examples of the figures of rhetoric.

"mands the whole earth; therefore my ſon "commands the whole earth"—the ſophiſm depends upon the inaccurate uſe of the word *commands*, which is employed in different ſenſes in the different propoſitions. This error was without difficulty detected by S—— at ten years old; and we make no doubt that any unprejudiced boy of the ſame age would immediately point out the fallacy without heſitation; but we do not feel quite ſure that a boy exerciſed in logic, who had been taught to admire and reverence the ancient figures of rhetoric, would with equal readineſs detect the ſophiſm. Perhaps it may ſeem ſurpriſing, that the ſame boy, who judged ſo well of this ſorites of Themiſtocles, ſhould a few months before have been eaſily entrapped by the following ſimple dilemma.

M——. "We ſhould avoid what gives us pain."

S——. "Yes to be ſure."

M——. "Whatever burns us gives us pain."

S——. "Yes, that it does!"

M——. "We ſhould then avoid whatever burns us."

To this concluſion S—— heartily aſſented, for he had but juſt recovered from the pain of a burn.

M——. "Fire burns us."

S——. "Yes, I know that."

M——. "We ſhould then avoid fire."

S——. "Yes."

This haſty *yes* was extorted from the boy by the mode of interrogatory; but he ſoon perceived his miſtake.

M——. "We ſhould avoid fire. What "when we are very cold?"

S——. "Oh, no; I meant to ſay, that we "ſhould avoid a certain degree of fire. We "ſhould not go *too* near the fire. We ſhould "not go *ſo* near as to burn ourſelves."

Children who have but little experience frequently admit aſſertions to be true in general, which are only true in particular inſtances. and this is often attributed to their want of judgment: it ſhould be attributed to their want of experience. Experience, and nothing elſe,

can rectify theſe miſtakes: if we attempt to correct them by words, we ſhall merely teach our pupils to argue about terms, not to reaſon. Some of the queſtions and themes which are given to boys may afford us inſtances of this injudicious education. "Is eloquence advantageous, or hurtful to a ſtate?" What a vaſt range of ideas, what variety of experience in men and things ſhould a perſon poſſeſs, who is to diſcuſs this queſtion! Yet it is often diſcuſſed by unfortunate ſcholars of eleven or twelve years old. "What is the greateſt good?" The anſwer expected by a preceptor to this queſtion obviouſly is, virtue; and, if a boy can in decent language write a page or two about *pleaſure's* being a tranſient, and virtue's being a permanent good, his maſter flatters himſelf that he has early taught him to reaſon philoſophically. But what ideas does the youth annex to the words pleaſure and virtue? Or does he annex any? If he annex no idea to the words, he is merely talking about ſounds.

All reaſoning ultimately refers to matters of fact; to judge whether any piece of reaſoning

be within the comprehenſion of a child, we muſt conſider whether the facts to which it refers are within his experience. The more we increaſe his knowledge of facts, the more we ſhould exerciſe him in reaſoning upon them; but we ſhould teach him to examine carefully before he admits any thing to be a fact, or any aſſertion to be true. Experiment, as to ſubſtances, is the teſt of truth; and attention to his own feelings, as to matters of feeling. Compariſon of the evidence of others with the general laws of nature, which he has learned from his own obſervation, is another mode of obtaining an accurate knowledge of facts. M. Condillac, in his Art of Reaſoning, maintains, that the evidence of reaſon depends ſolely upon our perception of the *identity*, or, to uſe a leſs formidable word, *ſameneſs*, of one propoſition with another. "A demonſtration," he ſays, "is only a chain of propoſitions, in "which the ſame ideas paſſing from one to the "other differ only becauſe they are differently "expreſſed; the evidence of any reaſoning "conſiſts ſolely in its identity."

M. Condillac * exemplifies this doctrine by tranſlating this propoſition, " The meaſure of " every triangle is the product of its height by " half its baſe," into ſelf-evident, or, as he calls them, identical propoſitions. The whole ultimately referring to the ideas which we have obtained by our ſenſes of a triangle; of its baſe, of meaſure, height, and number. If a child had not previouſly acquired any one of theſe ideas, it would be in vain to explain one term by another, or to tranſlate one phraſe or propoſition into another; they might be identical, but they would not be ſelf-evident propoſitions to the pupil; and no concluſion, except what relates merely to words, could be formed from ſuch reaſoning. The moral which we ſhould draw from Condillac's obſervations for Practical Education muſt be, that clear ideas ſhould firſt be acquired by the exerciſe of the ſenſes, and that afterwards, when we reaſon about

* Une démonſtration eſt donc une ſuite de propoſitions, où les mêmes idées paſſant de l'une à l'autre, ne différent que parce qu'elles ſont énoncées différemment; et l'évidence d'un raiſonnement conſiſte uniquement dans l'identité. V. Art de Raiſonner, p. 2.

things in words, we ſhould uſe few and accurate terms, that we may have as litte trouble as poſſible in changing or tranſlating one phraſe or propoſition into another.

Children, if they are not overawed by authority, if they are encouraged in the habit of obſerving their own ſenſations, and if they are taught preciſion in the uſe of the words by which they deſcribe them, will probably reaſon accurately where their own feelings are concerned.

In appreciating the teſtimony of others, and in judging of chances and probability, we muſt not expect our pupils to proceed very rapidly. There is more danger that they ſhould overrate, than that they ſhould undervalue the evidence of others; becauſe, as we formerly ſtated, we take it for granted, that they have had little experience of falſehood. We ſhould, to preſerve them from credulity, excite them, in all caſes where it can be obtained, never to reſt ſatisfied without the ſtrongeſt ſpecies of evidence, that of their own ſenſes. If a child ſays, "I am ſure of ſuch a thing," we ſhould immediately examine into his reaſons for be-

lieving it. "Mr. A. or Mr. B. told me ſo," is not a ſufficient cauſe of belief, unleſs the child has had long experience of A. and B.'s truth and accuracy; and, at all events, the indolent habit of relying upon the aſſertions of others, inſtead of verifying them, ſhould not be indulged.

It would be waſte of time to repeat thoſe experiments, of the truth of which the uniform experience of our lives has convinced us; we run no hazard, for inſtance, in believing any one who ſimply aſſerts, that they have ſeen an apple fall from a tree; this aſſertion agrees with the great natural *law of gravity*, or, in other words, with the uniform experience of mankind: but if any body told us, that they had ſeen an apple hanging ſelf-poiſed in the air, we ſhould reaſonably ſuſpect the truth of their obſervation, or of their evidence. This is the firſt rule which we can moſt readily teach our pupils in judging of evidence. We are not ſpeaking of children from four to ſix years old, for every thing is almoſt equally extraordinary to them; but when children are about ten or

eleven, they have acquired a ſufficient variety of facts to form compariſons, and to judge to a certain degree of the probability of any new fact that is related. In reading and in converſation we ſhould now exerciſe them in forming judgments, where we know that they have the means of compariſon. "Do you believe ſuch "a thing to be true? and why do you believe "it? Can you account for ſuch a thing?" are queſtions we ſhould often aſk at this period of their education. On hearing extraordinary facts ſome children will not be ſatisfied with vague aſſertions, others content themſelves with ſaying, "It is ſo, I read it in a book." We ſhould have little hopes of thoſe who ſwallow every thing they read in a book; we are always pleaſed to ſee a child heſitate and doubt, and require poſitive proof before he believes. The taſte for the marvellous is ſtrong in ignorant minds, the wiſh to account for every new appearance characteriſes the cultivated pupil.

A lady told a boy of nine years old (S——) the following ſtory, which ſhe had juſt met with in "The Curioſities of Literature." An

officer, who was confined in the Baſtille, uſed to amuſe himſelf by playing on the flute: one day he obſerved, that a number of ſpiders came down from their webs, and hung round him as if liſtening to his muſic; a number of mice alſo came from their holes, and retired as ſoon as he ſtopped. The officer had a great diſlike to mice; he procured a cat from the keeper of the priſon, and when the mice were entranced by his muſic, he let the cat out amongſt them.

S—— was much diſpleaſed by this man's treacherous conduct towards the poor mice, and his indignation for ſome moments ſuſpended his reaſoning faculty; but, when S—— had ſufficiently expreſſed his indignation againſt the officer in the affair of the mice, he began to queſtion the truth of the ſtory; and he ſaid, that he did not think it was certain, that the mice and ſpiders came to liſten to the muſic. "I do not know about the mice," ſaid he, "but I think, perhaps, when the officer played "upon the flute, he ſet the air in motion, and "ſhook the cobwebs, ſo as to diſturb the ſpi-"ders." We do not, nor did the child think,

that this was a ſatisfactory account of the matter, but we mention it as an inſtance of the love of inveſtigation, which we wiſh to encourage.

The difficulty of judging concerning the truth of evidence increaſes, when we take moral cauſes into the account. If we had any ſuſpicion, that a man who told us that he had ſeen an apple fall from a tree, had himſelf pulled the apple down and ſtolen it, we ſhould ſet the probability of his telling a falſehood, and his motive for doing ſo, againſt his evidence; and though, according to the natural phyſical courſe of things, there would be no improbability in his ſtory, yet there might ariſe improbability from his character for diſhoneſty; and thus we ſhould feel ourſelves in doubt concerning the fact. But if two people agreed in the ſame teſtimony our doubt would vaniſh, the diſhoneſt man's doubtful evidence would be corroborated, and we ſhould believe, notwithſtanding his general character, in the truth of his aſſertion in this inſtance. We could make the matter infinitely more complicated, but what has been

ſaid will be ſufficient to ſuggeſt to preceptors the difficulty, which their young and inexperienced pupils muſt feel, in forming judgments of facts where phyſical and moral probabilities are in direct oppoſition to each other.

We wiſh that a writer equal to ſuch a taſk would write trials for children as exerciſes for their judgment; beginning with the ſimpleſt, and proceeding gradually to more complicated caſes in which moral reaſonings can be uſed. We do not mean, that it would be adviſable to initiate young readers in the technical forms of law; but the general principles of juſtice, upon which all law is founded, might, we think, be advantageouſly exemplified. Such trials would entertain children extremely. There is a ſlight attempt at the kind of compoſition we mean, in a little trial in Evenings at Home; and we have ſeen children read it with great avidity. Cyrus's judgment about the two coats, and the ingenious ſtory of the olive merchant's cauſe rejudged by the ſenſible child in the Arabian Tales, have been found highly intereſting to a young audience.

We ſhould prefer truth to fiction; if we could ſelect any inſtances from real life, any trials ſuited to the capacity of young people, they would be preferable to any which the moſt ingenious writer could invent for our purpoſe. A gentleman, who has taken his two ſons, one of them ten, and the other fifteen years old, to hear trials at his county aſſizes, found by the account which the boys gave of what they had heard, that they had been intereſted, and that they were capable of underſtanding the buſineſs.

Allowance muſt be made at firſt for the buſtle and noiſe of a public place, and for the variety of objects which diſtract the attention.

Much of the readineſs of forming judgments depends upon the power of diſcarding and obliterating from our mind all the ſuperfluous circumſtances; it may be uſeful to exerciſe our pupils, by telling them now and then ſtories in the confuſed manner in which they are ſometimes related by puzzled witneſſes; let them reduce the heterogeneous circumſtances to order, make a clear ſtatement of the caſe for themſelves, and try if they can point out the

facts on which the deciſion principally reſts. This is not merely education for a lawyer, the powers of reaſoning and judgment, when they have been exerciſed in this manner, may be turned to any art or profeſſion. We ſhould, if we were to try the judgment of children, obſerve, whether in unuſual circumſtances they can apply their former principles, and compare the new objects that are placed before them without perplexity. We have ſometimes found, that on ſubjects entirely new to them, children, who have been uſed to reaſon, can lay aſide the circumſtances that are not eſſential, and form a diſtinct judgment for themſelves, independently of the opinion of others.

Laſt winter the entertaining life of the celebrated miſer Mr. Elwes was read aloud in a family, in which there were a number of children. Mr. Elwes, once, as he was *walking* home on a dark night, in London, ran againſt a chair pole and bruiſed both his ſkins. His friends ſent for a ſurgeon. Elwes was alarmed at the idea of expence, and he laid the ſurgeon a wager to the amount of his bill, that the leg

which he took under his own protection would get well ſooner than that which was put under the ſurgeon's care; at the ſame time Mr. Elwes promiſed to put nothing to the leg of which he took charge. Mr. Elwes's favourite leg got well ſooner than that which the ſurgeon had undertaken to cure, and Mr. Elwes won his wager. In a note upon this tranſaction his biographer ſays, "This wager would have "been a bubble bet if it had been brought be- "fore the Jockey-club, becauſe Mr. Elwes, "though he promiſed to put nothing to the "leg under his own protection, took Velnos' "vegetable ſirup during the time of its cure."

C—— (a girl of 12 years old,) obſerved when this anecdote was read, that "ſtill the "wager was a fair wager, becauſe *the medi-* "*cine* which Mr. Elwes took, if it was of any "uſe, muſt have been of uſe to both legs; "therefore the ſurgeon and Mr. Elwes had "equal advantage from it." C—— had never heard of the Jockey club, nor of bubble bets before, and ſhe uſed the word *medicine*, becauſe ſhe forgot the name of Velnos' vegetable ſirup.

We have obſerved, that works of criticiſm are unfit for children, and teach them rather to remember what others ſay of authors, than to judge of the books themſelves impartially; but, when we objected to works of criticiſm, we did not mean to object to criticiſm; we think it an excellent exerciſe for the judgment, and we have ourſelves been ſo well corrected, and ſo kindly aſſiſted by the obſervations of young critics, that we cannot doubt their capacity. This book has been read to a jury of young critics, who gave their utmoſt attention to it for about half an hour at a ſitting, and many amendments have been made from their ſuggeſtions. In the chapter on obſtinacy, for inſtance, when we were aſſerting, that children ſometimes forget their old bad habits, and do not conſider theſe as a part of themſelves, there was this alluſion.

"As the ſnake when he caſts his ſkin leaves "the ſlough behind him, and winds on his "way in new and beautiful colours."

The moment this ſentence was read, it was objected to by the audience. S——, who had

been pondering over the affair in ſilence, exclaimed, "But I think there is a fault in the "alluſion; do not ſnakes caſt their ſkins every "year? Then theſe *new and beautiful colours*, "which are the good habits, muſt be thrown "aſide and forgotten the next time; but that "ſhould not be."

This criticiſm appeared concluſive even to the author, and the ſentence was immediately expunged.

When young people have acquired a command of language, we muſt be careful leſt their fluency and their ready uſe of ſynonymous expreſſions ſhould leſſen the accuracy of their reaſoning. Mr. Horne Tooke has ably ſhewn the connection between the ſtudy of language and the art of reaſoning. It is not neceſſary to make our pupils profound grammarians, or etymologiſts, but attention to the origin, abbreviations, and various meanings of words, will aſſiſt them not only to ſpeak, but to think and argue with preciſion. This is not a ſtudy of abſtract ſpeculation, but of practical, daily utility; half the diſputes, and much of the

miſery of the world, originate and perpetuate themſelves by the inaccurate uſe of words. One party uſes a word in *this* ſenſe, the oppoſite party uſes the ſame word in another ſenſe; all their reaſonings appear abſurd to each other; and, inſtead of explaining them, they quarrel. This is not the caſe merely in *philoſophical* diſputes between authors, but it happens continually in the buſy active ſcenes of life. Even whilſt we were writing this paſſage, in the newſpaper of to-day we met with an inſtance, that is ſufficiently ſtriking.

"The accuſation againſt me," ſays Sir Sidney Smith, in his excellent letter to Pichegru, expoſtulating upon his unmerited confinement, "brought forward by *your* juſtice of the peace, "was, that I was the enemy of the republic. "You know, General, that with military men "the word *enemy* has merely a technical ſigni- "fication, without expreſſing the leaſt character "of hatred. You will readily admit this principle, "the *reſult* of which is, that I ought not to be "perſecuted for the injury I have been enabled "to do whilſt I carried arms againſt you."

Here the argument between two Generals, one of whom is pleading for his liberty, if not for his life, turns upon the meaning and conſtruction of a ſingle word. Accuracy of reaſoning, and ſome knowledge of language, may, it appears, be of eſſential ſervice in all profeſſions.

It is not only neceſſary to attend to the exact meaning which is avowedly affixed to any terms uſed in argument, but it is alſo uſeful to attend to the thoughts which are often ſuggeſted to the diſputants by certain words. Thus, the words happineſs, and beauty, ſuggeſt in converſation very different ideas to different men, and in arguing concerning theſe they could never come to a concluſion: even perſons who agree in the ſame definition of a word frequently do not ſufficiently attend to the ideas which the word ſuggeſts; to the aſſociation of thoughts and emotions which it excites; and, conſequently, they cannot ſtrictly abide by their own definition, nor can they diſcover where the error lies. We have obſerved, that the imagination is powerfully affected by words that ſuggeſt

long trains of ideas; our reaſonings are influenced in the ſame manner, and the elliptical figures of ſpeech are uſed in reaſoning as well as in poetry.

"I would do ſo and ſo, if I were Alexander."

"And ſo would I, if I were Parmenio:"

is a ſhort reply, which ſuggeſts a number of ideas, and a train of reaſoning. To thoſe who cannot ſupply the intermediate ideas the anſwer would not appear either ſublime or rational. Young people, when they appear to admire any compreſſed reaſoning, ſhould be encouraged to ſhew, that they can ſupply the thoughts and reaſons that are not expreſſed. Vivacious children will be diſguſted, however, if they are required to detail upon the ſubject; all that is neceſſary is, to be ſure that they actually comprehend what they admire.

Sometimes a queſtion that appears ſimple involves the conſideration of others which are difficult. Whenever a preceptor cannot go to the bottom of the buſineſs, he will do wiſely to ſay ſo at once to his pupil, inſtead of attempting a ſuperficial or evaſive reply. For inſtance,

if a child was to hear that the Dutch burn and deſtroy quantities of ſpice, the produce of their India iſlands, he would probably expreſs ſome ſurpriſe, and perhaps ſome indignation. If a preceptor were to ſay, "The Dutch have a "right to do what they pleaſe with what is "their own, and the ſpice is their own," his pupil would not be ſatisfied; he would probably ſay, "Yes, they have a right to do what "they pleaſe with what is their own; but "why ſhould they deſtroy what is uſeful?" The preceptor might anſwer, if he choſe to make a fooliſh anſwer, "The Dutch follow "their own intereſt in burning the ſpice; they "ſell what remains at a higher price; the mar-"ket would be overſtocked if they did not "burn ſome of their ſpice." Even ſuppoſing the child to underſtand the terms, this would not be a ſatisfactory anſwer; nor could one be given without diſcuſſing the nature of commerce, and the *juſtice* of monopolies. Where one queſtion in this manner involves another, we ſhould poſtpone the diſcuſſion if it cannot be completely made; the road may be juſt

pointed out, and the pupil's curioſity may be excited to future enquiry. It is even better to be ignorant, than to have ſuperficial knowledge.

A philoſopher, who himſelf excelled in accuracy of reaſoning, recommends the ſtudy of mathematics to improve the acuteneſs and preciſion of the reaſoning faculty*. To ſtudy any thing accurately will have an excellent effect upon the mind, and we may afterwards direct the judgment to whatever purpoſes we pleaſe. It has been often remarked, as a reproach upon men of ſcience and literature, that thoſe who judge extremely well of books, and of abſtract philoſophical queſtions, do not ſhew the ſame judgment in the active buſineſs of life; a man, undoubtedly, may be a good mathematician, a good critic, an excellent writer, and may yet not ſhew, or rather not employ, much judgment in his conduct: his powers of reaſoning cannot be deficient, the habit of employing thoſe powers in conducting himſelf he ſhould have been taught by early education. Moral

* Locke. On the Conduct of the Human Underſtanding.

reaſoning, and the habit of acting in conſequence of the conviction of judgment, we call prudence; a virtue of ſo much conſequence to all the other virtues, a virtue of ſo much conſequence to ourſelves and to our friends, that it ſurely merits a whole chapter in Practical Education.

CHAPTER XXIV.

ON PRUDENCE AND ECONOMY.

VOLTAIRE ſays, that the king of Pruſſia always wrote with one kind of enthuſiaſm, and acted with another. It often happens, that men judge with one degree of underſtanding, and conduct themſelves with another *; hence the common place remarks on the difference between theory and practice; hence the obſervation, that it is eaſy to be prudent for other people, but extremely difficult to be pru-

* Here lies the mutton eating king;
Whoſe promiſe none relied on;
Who never *ſaid* a fooliſh thing,
And never did a wiſe one.

EPITAPH on Charles 2d.

dent for ourſelves. Prudence is a virtue compounded of judgment and reſolution: we do not here ſpeak of that narrow ſpecies of prudence, which is more properly called worldly wiſdom; but we mean that enlarged, comprehenſive wiſdom, which, after taking a calm view of the objects of happineſs, ſteadily prefers the greateſt portion of felicity. This is not a ſelfiſh virtue, for, according to our definition, benevolence, as one of the greateſt ſources of our pleaſures, muſt be included in the truly prudent man's eſtimate. Two things are neceſſary to make any perſon prudent, the power to judge, and the habit of acting in conſequence of his conviction. We have in the preceding chapter, as far as we were able, ſuggeſted the beſt methods of cultivating the powers of reaſoning in our pupils: we muſt now conſider how theſe can be applied immediately to their conduct, and aſſociated with habits of action.

Inſtead of deciding always for our young pupils, we ſhould early accuſtom them to chooſe for themſelves about every trifle which is intereſting to childhood: if they chooſe wiſely,

they ſhould enjoy the natural reward of their prudence; and if they decide raſhly, they ſhould be ſuffered to feel the conſequence of their own error. Experience, it is ſaid, makes even fools wiſe; and the ſooner we can give experience, the ſooner we ſhall teach wiſdom. But we muſt not ſubſtitute belief upon truſt for belief upon conviction. When a little boy ſays, "I "did not eat any more cuſtard, becauſe mam-"ma told me that the cuſtard would make me "ſick," he is only obedient, he is not prudent; he ſubmits to his mother's judgment, he does not uſe his own. When obedience is out of the queſtion, children ſometimes follow the opinions of others; of this we formerly gave an inſtance (v. Toys) in the poor boy, who choſe a gilt coach, becauſe his mamma "*and every* "*body ſaid it was the prettieſt*," whilſt he really preferred the uſeful cart: we ſhould never prejudice them either by our *wiſdom* or our folly.

When their attention is not turned to divine what the ſpectators think and feel, children will have leiſure to conſult their own minds, and

to compare their own feelings. As this has been already ſpoken of, we ſhall not dwell upon it; we only mention it as a neceſſary precaution in teaching prudence.

Some parents may perhaps fear, that, if they were to allow children to chooſe upon every trifling occaſion for themſelves, they would become wilful and troubleſome: this certainly will be the effect, if we make them think that there is a pleaſure in the exerciſe of free-will, independently of any good that may be obtained by judicious choice. "Now, my dear, you "ſhall have *your* choice! You ſhall chooſe for "*yourſelf!* You ſhall have your *free* choice!" are expreſſions that may be pronounced in ſuch a tone, and with ſuch an emphaſis to a child, as immediately to excite a ſpecies of triumphant ecſtaſy from the mere idea of having his *own* free choice. By a different accent and emphaſis we may repreſs the ideas of triumph, and without intimidating the pupil, we may turn his mind to the difficulties, rather than the glory of being in a ſituation to decide for himſelf.

We muſt not be ſurpriſed at the early imprudence of children; their miſtakes when they firſt are allowed to make a choice are inevitable; all their ſenſations are new to them, conſequently they cannot judge of what they ſhall like or diſlike. If ſome of Lord Macartney's ſuite had, on his return from the late embaſſy to China, brought home ſome plant whoſe ſmell was perfectly unknown to Europeans, would it have been poſſible for the greateſt philoſopher in England to have decided, if he had been aſked, whether he ſhould like the unknown perfume? Children for the firſt five or ſix years of their lives are in the ſituation of this philoſopher, relatively to external objects. We ſhould never reproachfully ſay to a child, "You aſked "to ſmell ſuch a thing; you aſked to ſee ſuch "a thing; and now you have had your wiſh, "you don't like them!" How can the child poſſibly judge of what he ſhall like or diſlike, before he has tried? Let him try experiments upon his own feelings; the more accurate knowledge he acquires, the ſooner he will be enabled to chooſe *prudently*. You may expe-

dite his progreſs, by exciting him to compare each new ſenſation with thoſe to which he is already familiariſed; this will counteract that love of novelty which is often found dangerous to prudence; if the mind is employed in comparing, it cannot be dazzled by new objects.

Children often imagine, that what they like for the preſent minute, they ſhall continue to like for ever; they have not learnt from experiment, that the moſt agreeable ſenſations fatigue, if they are prolonged or frequently repeated; they have not learnt, that all violent ſtimuli are followed by wearineſs or ennui. The ſenſible preceptor will not inſiſt upon his pupil's knowing theſe things by inſpiration, or will he expect that his aſſertions or prophecies ſhould be implicitly believed; he will wait till the child *feels*, and at that moment he will excite his pupil to obſerve his own feelings. "You thought that you ſhould never be tired "of ſmelling that roſe, or of looking at that "picture; now you perceive that you *are* tired: "remember this; it may be of uſe to you an- "other time." If this be ſaid in a friendly

manner, it will not pique the child to defend his paſt choice, but it will direct his future judgment.

Young people are often reproached for their imprudence in preferring a ſmall preſent pleaſure to a large diſtant advantage; this error alſo ariſes from inexperience, not from want of judgment, or deficiency in ſtrength of mind. When that which has been the future has in its turn become preſent, children begin to have ſome idea of the nature of time, and they can then form ſome compariſons between the value of preſent and future pleaſures. This is a very ſlow proceſs; old people calculate and depend upon the diſtant future more than the young, not always from their increaſed wiſdom or prudence, but merely from their increaſed experience, and conſequent belief that the future will in time arrive. It is imprudent in old people to depend upon the future; if they were to reaſon upon the chance of their lives, they ought not to be ſecure of its arrival; yet habit in this inſtance, as in many others, is more powerful than reaſon; in all the plans of elderly

people there is ſeldom any error from impatience as to the future; there often appear groſs errors in their ſecurity as to its arrival. If theſe oppoſite habits could be mixed in the minds of the old, and of the young, it would be for their mutual advantage.

It is not poſſible to *infuſe* experience into the mind; our pupils muſt feel for themſelves: but by teaching them to obſerve their own feelings we may abridge their labour; a few leſſons will teach a great deal when they are properly applied. To teach children to calculate and compare their preſent and future pleaſures, we may begin by fixing ſhort intervals of time for our experiments; an hour, a day, a week, perhaps, are periods of time to which their imagination will eaſily extend; they can meaſure and compare their feelings within theſe ſpaces of time, and we may lead them to obſerve their own errors in not providing for the future. "Now "Friday is come; laſt Monday you thought "Friday would never come. If you had not "cut away all your pencil laſt week, you would

"have had ſome left to draw with to-day. "Another time you will manage better."

We ſhould alſo lead them to compare their ideas of any given pleaſure, before and after the period of its arrival. "You thought laſt "ſummer that you ſhould like making ſnow-"balls in winter, better than making hay in "ſummer. Now you have made ſnow-balls "to-day; and you remember what you felt "when you were making hay laſt ſummer; do "you like the ſnow-ball pleaſure, or the hay-"making pleaſure the beſt?" V. Berquin's Quatre Saiſons.

If our pupils, when they have any choice to make, prefer a ſmall gratification to a great future pleaſure, we ſhould not at the moment of their deciſion reproach their imprudence, but we ſhould *ſteadily make them abide by their choice;* and when the time arrives at which the greater pleaſure might have been enjoyed, we ſhould remark the circumſtance, but not with a tone of reproach, for it is their affair, not ours. "You preferred having a ſheet of paper "the moment you wanted it laſt week, to the

" having a quire of paper this week." " Oh, " but," ſays the child, " I wanted a ſheet of " paper very much then, but I did not con- " ſider how ſoon this week would come, I wiſh " I had choſen the quire." " Then remember " what you feel now, and you will be able to " chooſe better upon another occaſion." We ſhould always refer to the pupils own feelings, and look forward to their future advantage; the reaſon why ſo few young people attend to advice is, that their preceptors do not bring it actually home to their feelings; it is uſeleſs to reproach for paſt imprudence; the child ſees the error as plainly as we do; all that can be done is to make it a leſſon for the future.

To a geometrician the words *by propoſition 1ſt.* ſtand for a whole demonſtration: if he recollects that he has once gone over the demonſtration, he is ſatisfied of its truth, and without verifying it again, he makes uſe of it in making out the demonſtration of a new propoſition. In moral reaſoning we proceed in the ſame manner; we recollect the reſult of our paſt experiments, and we refer to this moral de-

monſtration in ſolving a new problem. In time, by frequent practice, this operation is performed ſo rapidly by the mind, that we ſcarcely perceive it, and yet it guides our actions. A man in walking acroſs the room keeps out of the way of the tables and chairs, without perceiving that he reaſons about the matter; a ſober man avoids hard drinking, becauſe he knows it to be hurtful to his health; but he does not every time he refuſes to drink go over the whole train of reaſoning which firſt decided his determination. A modern philoſopher * calls this rapid ſpecies of reaſoning "intuitive analogy;" applied to the buſineſs of life, the French call it tact. Senſible people have this tact in higher perfection than others, and prudent people govern themſelves by it more regularly than others: by the methods which we have recommended, we hope it may be ſucceſsfully cultivated in early education.

Rouſſeau, in expreſſing his contempt for thoſe who make *habit* their only guide of action, goes, as he is apt to do in the heat of de-

* Darwin's Zoonomia.

clamation, into the error oppoſite to that which he ridicules. "The only habit," cries he, "that I wiſh my Emilius to have, is the habit "of having no habits." Emilius would have been a ſtrange being, had he literally accompliſhed his preceptor's wiſh. To go up ſtairs would have been a moſt operoſe, and to go down ſtairs a moſt tremendous affair to Emilius, for as he was to have no habits, between every ſtep of the ſtairs new deliberations muſt take place, and freſh deciſions of the judgment and will enſue. In his moral judgments Emilius would have had as much uſeleſs labour. Habit ſurely is neceſſary, even to thoſe who make reaſon the ultimate judge of their affairs. Reaſon is not to be appealed to upon every trivial occaſion, to rejudge the ſame cauſe a million of times. Muſt a man, every time he draws a ſtraight line, repeat to himſelf, "a right "line is that which lieth evenly between its "points?" Muſt he rehearſe the propoſitions of Euclid, inſtead of availing himſelf of their practical uſe?

"Chriſtian, canſt thou raiſe a perpendicular

"upon a ſtraight line?" is the apoſtrophe with which the croſs-legged emperor of Barbary, ſeated on his throne of rough deal boards, accoſts every *learned* ſtranger who frequents his court. In the courſe of his reign, probably, his Barbaric majeſty may have reiterated the demonſtration of this favourite propoſition, which he learned from a French ſurgeon, about five hundred times; but his majeſty's underſtanding is not materially improved by theſe recitals; his geometrical learning is confined, we are told, to this ſingle propoſition.

It would have been ſcarcely worth while to have ſingled out for combat this paradox of Rouſſeau's concerning habit, if it had not preſented itſelf in the formidable form of an antitheſis. A falſe maxim conveyed in an antitheſis is dangerous, becauſe it is eaſily remembered and repeated, and it quickly paſſes current in converſation.

But to return to our ſubject, of which we have *imprudently* loſt ſight. Imprudence does not always ariſe from neglect of our paſt experience, or from our forgetting to take the future

into our calculations, but from falſe aſſociations, or from paſſion. Objects often appear different to one man, from what they do to the reſt of the world: this man may reaſon well upon what the majority of reaſonable people agree to call falſe appearances; he may follow ſtrictly the conviction of his own underſtanding, and yet the world will ſay that he acts very imprudently. To the taſte or ſmell of thoſe who are in a fever, objects not only appear, but really are to the patients different from what they appear to perſons in ſound health; in the ſame manner to the imagination objects have really a different value in moments of enthuſiaſm, from what they have in our cooler hours, and we ſcarcely can believe that our view of objects will ever vary. It is in vain to oppoſe reaſon to falſe aſſociations, we muſt endeavour to combat one ſet of aſſociations by another, and to alter the ſituation, and conſequently, the views of the miſtaken perſon. Suppoſe, for inſtance, that a child had been in a coach and ſix upon ſome *pleaſant* excurſion (it is an improbable thing, but we may ſuppoſe any thing): ſup-

poſe that a child had enjoyed from ſome accidental circumſtances an extraordinary degree of pleaſure in a coach and ſix, he might afterwards long to be in a ſimilar vehicle, from a miſtaken notion, that it could confer happineſs. Here we ſhould not oppoſe the force of reaſoning to a falſe aſſociation, but we ſhould counteract the former aſſociation. Give the child an equal quantity of amuſement when he is not in a coach and ſix, and then he will form freſh pleaſurable aſſociations with other objects which may balance his firſt prepoſſeſſion. If you oppoſe reaſon ineffectually to paſſion or taſte, you bring the voice and power of reaſon into diſcredit with your pupil. When you have changed his view of things, you may then reaſon with him, and ſhow him the cauſe of his former miſtake.

In the excellent fable of the ſhield that was gold on one ſide and ſilver on the other, the two diſputants never could have agreed until they changed places. When you have in ſeveral inſtances proved by experiment that you judge more prudently than your pupil, he will

be ſtrongly inclined to liſten to your counſels, and then your experience will be of real uſe to him; he will argue from it with ſafety and ſatisfaction. When, after recovering from fits of paſſion or enthuſiaſm, you have upon ſeveral occaſions convinced him, that your admonitions would have prevented him from the pain of repentance, he will recollect this when he again feels the firſt riſe of paſſion in his mind, and he may in that lucid moment avail himſelf of your calm reaſon, and thus avoid the exceſſes of extravagant paſſions. That unfortunate French monarch*, who was liable to temporary fits of frenſy, learned to foreſee his approaching malady, and often requeſted his friends to diſarm him, leſt he ſhould injure any of his attendants.

In a malady which precludes the uſe of reaſon, it was poſſible for this humane patient to foreſee the probable miſchief he might do to his fellow creatures, and to take prudent meaſures againſt his own violence; and may not we expect, that thoſe who are early accuſtomed to attend to their own feelings, may prepare againſt

* Charles VI.

the extravagance of their own paſſions, and avail themſelves of the regulating advice of their temperate friends?

In the education of girls we muſt teach them much more caution than is neceſſary to boys: their prudence muſt be more the reſult of reaſoning than of experiment; *they muſt* truſt to the experience of others, they cannot always have recourſe to what *ought to be*, they muſt adapt themſelves to what is. They cannot rectify the material miſtakes in their conduct*. Timidity, a certain tardineſs of deciſion, and reluctance to act in public ſituations, are not conſidered as defects in a woman's character; her pauſing prudence does not to a man of diſcernment denote imbecility, but appears to him the graceful auſpicious characteriſtic of female virtue. There is always more probability, that women ſhould endanger their own happineſs by precipitation than by forbearance. Promptitude of choice is ſeldom expected from the female ſex; they ſhould avail themſelves of the

* "No penance can abſolve their guilty fame,
"Nor tears, that waſh out ſin, can waſh out ſhame."

leiſure that is permitted to them for reflection. "Begin nothing of which you have not well "conſidered the end," was the piece of advice for which the Eaſtern Sultan * paid a purſe of gold, the price ſet upon it by a ſage. The monarch did not repent of his purchaſe. This maxim ſhould be engraved upon the memory of our female pupils by the repeated leſſons of education. We ſhould even in trifles avoid every circumſtance which can tend to make girls ventureſome, which can encourage them to truſt to their good fortune, inſtead of relying on their own prudence. Marmontel's tale, entitled "*Heureuſement*," is a witty, but ſurely not a *moral* tale. Girls ſhould be diſcouraged from hazarding opinions in general converſation, but amongſt their friends they ſhould be excited to reaſon with accuracy and with temper. It is really a part of a woman's prudence to have command of temper; if ſhe has it not, her wit and ſenſe will not have their juſt value in domeſtic life. Calphurnia, a Roman lady, uſed to plead her own cauſes before the ſenate, and

* Perſian Tales.

we are informed, that ſhe became " ſo trou-
" bleſome and confident, that the judges de-
" creed that thenceforward no woman ſhould
" be ſuffered to plead." Did not this lady make an imprudent uſe of her talents?

In the choice of friends, and on all matters of taſte, young women ſhould be excited to reaſon about their own feelings. " There is " no reaſoning about taſte," is a pernicious maxim; if there was more reaſoning, there would be leſs diſputation upon this ſubject. If women queſtioned their own minds, or allowed their friends to queſtion them concerning the reaſons of their " preferences and averſions," there would not probably be ſo many love matches, and ſo few love marriages. It is in vain to expect, that young women ſhould begin to reaſon miraculouſly, at the very moment that reaſon is wanted in the guidance of their conduct: we ſhould alſo obſerve, that women are called upon for the exertion of their prudence at an age when young men are ſcarcely ſuppoſed to poſſeſs that virtue; therefore women ſhould be more early, and more carefully edu-

cated for the purpoſe. The important deciſions of a woman's life are often made before ſhe is twenty; a man does not come upon the theatre of public life, where moſt of his prudence is ſhewn, till he is much older.

Economy is an eſſential domeſtic virtue. Some women have a fooliſh love of expenſive baubles; a taſte which a very little care, probably, in their early education, might have prevented. We are told, that when a collection of three hundred and fifty pounds was made for the celebrated Cuzzona to ſave her from abſolute want, ſhe immediately laid out two hundred pounds of the money in the purchaſe of a *ſhell cap*, which was then in faſhion *. Prudent mothers will avoid ſhewing any admiration of pretty trinkets before their young daughters, and they will oppoſe the ideas of utility and durability to the mere caprice of faſhion, which creates a taſte for beauty, as it were, by proclamation. "Such a thing is pretty, but it is of "no uſe. Such a thing is pretty, but it will "ſoon wear out"—a mother may ſay; and ſhe

* Mrs. Piozzi's Engliſh Synonymy, vol. i. p. 359.

would prove the truth of her aſſertions to her pupils.

Economy is uſually confined to the management of money, but it may be ſhewn on many other occaſions: economy may be exerciſed in taking care of whatever belongs to us; children ſhould have the care of their own clothes, and if they are negligent of what is in their charge, this negligence ſhould not be repaired by ſervants or friends, they ſhould feel the real natural conſequences of their own neglect, but no other puniſhment could be inflicted; and they ſhould be left to make their own reflections upon their errors and misfortunes, undiſturbed by the reproaches of their friends, or by the proſing moral of a governeſs or preceptor. We recommend, for we muſt deſcend to theſe trifles, that girls ſhould be ſupplied with an independent ſtock of all the little things which are in daily uſe; houſewifes and pocket books well ſtored with uſeful implements; and there ſhould be no lending and borrowing amongſt children. It will be but juſt to provide our pupils with convenient places for the preſervation and arrangement of

their little goods. Order is neceſſary to economy, and we cannot more certainly create a taſte for order, than by ſhewing early its advantages in practice as well as in theory. The averſion to *old* things ſhould, if poſſible, be prevented in children; we ſhould not expreſs contempt for *old* things, but we ſhould treat them with increaſed reverence, and exult in their having arrived under our protection to ſuch a creditable age. "I have had ſuch a hat ſo long, "therefore it does not ſignify what becomes of "it!" is the ſpeech of a *promiſing* little ſpendthrift. "I have taken care of my hat, it has "laſted ſo long; and I hope I ſhall make it "laſt longer," is the exultation of a young economiſt, in which his prudent friend ſhould ſympathiſe.

"Waſte not, want not," is an excellent motto in an Engliſh nobleman's kitchen *. The moſt opulent parents ought not to be aſhamed to adopt it in the economic education of their children; early habits of care, and an early averſion and contempt for the ſelfiſh ſpirit of waſte,

* Lord Scarſdale's. Keddleſton.

ful extravagance, may preſerve the fortunes, and, what is of far more importance, the integrity and peace of mind, of noble families.

We have ſaid, that economy cannot be exerciſed without children's having the management of money. Whilſt our pupils are young, if they are educated at home, they cannot have much real occaſion for money; all the neceſſaries of life are provided for them; and if they have money to ſpend, it muſt be probably laid out in ſuperfluities. This is a bad beginning. Money ſhould be repreſented to our pupils as what it really is, the conventional ſign of the value of commodities; before children are acquainted with the real and comparative value of any of theſe commodities, it is ſurely imprudent to truſt them with money. As to the idea that children may be charitable and generous in the diſpoſal of money, we have expreſſed our ſentiments fully upon this ſubject already. We are however ſenſible, that when children are ſent to any ſchool, it is adviſeable to ſupply them with pocket-money enough to put them upon an equal footing with their companions;

otherwiſe we might run the hazard of inducing worſe faults than extravagance—meanneſs, or envy.

Young people who are educated at home ſhould, as much as poſſible, be educated to take a family intereſt in all the domeſtic expences. Parental reſerve in money matters is extremely impolitic; as Mr. Locke judiciouſly obſerves, that a father, who wraps his affairs up in myſtery, and who "views his ſon with jealous "eyes," as a perſon who is to begin *to live* when he dies, *muſt* make him an enemy by treating him as ſuch. A frank ſimplicity and cordial dependence upon the integrity and upon the ſympathy of their children, will enſure to parents their diſintereſted friendſhip. Ignorance is always more to be dreaded than knowledge. Young people who are abſolutely ignorant of affairs, who have no idea of the relative expence of different modes of living, and of the various wants of a family, are apt to be extremely unreaſonable in the imaginary diſpoſal of their parent's fortune; they confine their view merely to their own expences. "I *only*

"ſpend ſuch a ſum," they ſay, "and ſurely "that is nothing to my father's income." They conſider only the abſolute amount of what they ſpend, they cannot compare it with the number of other expences which are neceſſary for the reſt of the family; they do not know theſe, therefore they cannot perceive the proportion which it is reaſonable that their expenditure ſhould bear to the whole. Mrs. D'Arblay, in one of her excellent novels, has given a ſtriking picture of the ignorance in which young women ſometimes leave their father's houſe, and begin to manage in life for themſelves, without knowing any thing of the *powers* of money. Camilla's imprudence muſt chiefly be aſcribed to her ignorance. Young women ſhould be accuſtomed to keep the family accounts, and their arithmetic ſhould not be merely a ſpeculative ſcience; they ſhould learn the price of all neceſſaries, and of all luxuries; they ſhould learn what luxuries are ſuited to their fortune and rank, what degree of expence in dreſs is eſſential to a regularly neat appearance, and what muſt be the increaſed expence and temp-

tations of fashion in different situations; they should not be suffered to imagine that they can resist these temptations more than others, if they get into company above their rank, nor should they have any indistinct idea, that by some wonderfully economical operations they can make a given sum of money go farther than others can do. The steadiness of calculation will prevent all these vain notions; and young women, when they see in stubborn figures what must be the consequence of getting into situations where they must be tempted to exceed their means, will probably begin by avoiding, instead of braving, the danger.

Most parents think that their sons are more disposed to extravagance than their daughters; the sons are usually exposed to greater temptations. Young men excite one another to expence, and to a certain carelessness of economy, which assumes the name of spirit, while it often forfeits all pretensions to justice. A prudent father will never, from any false notions of forming his son early to *good* company, introduce him to associates whose only merit is

their rank or their fortune. Such companions will lead a weak young man into every ſpecies of extravagance, and then deſert and ridicule him in the hour of diſtreſs. If a young man has a taſte for literature, and for rational ſociety, his economy will be ſecured ſimply, becauſe his pleaſures will not be expenſive, nor dependent upon the caprice of faſhionable aſſociates. The intermediate ſtate between that of a ſchool-boy and a man is the dangerous period, in which taſte for expence is often acquired, before the means of gratifying it are obtained. Boys liſten with anxiety to the converſation of thoſe who are a few years older than themſelves. From this converſation they gather *information* reſpecting the ways of the world, which, though often erroneous, they tenaciouſly believe to be accurate: it is in vain that their older friends may aſſure them that ſuch and ſuch frivolous expences are not neceſſary to the well-being of a man in ſociety, they adhere to the opinion of the younger counſel; they conclude that every thing is changed ſince their parents were young, that they muſt not govern themſelves by anti-

quated notions, but by the ſcheme of economy which happens to be the faſhion of the day. During this boyiſh ſtate parents ſhould be particularly attentive to the company which their ſons keep; and they ſhould frequently in converſation with ſenſible, but not with moroſe or old-faſhioned people, lead to the ſubject of economy, and openly diſcuſs and ſettle the moſt eſſential points. At the ſame time a father ſhould not intimidate his ſon with the idea that nothing but rigid economy can win his parental favour; his parental favour ſhould not be a mercenary object; he ſhould rather ſhew his ſon, that he is aware of the great temptations to which a young man is expoſed in going firſt into the world; he ſhould ſhew him, both that he is diſpoſed to place confidence in him, and that he yet knows the fallibility of youthful prudence. If he expect from his ſon unerring prudence, he expects too much, and he will, perhaps, create an apprehenſion of his diſpleaſure, which may chill and repreſs all ingenuous confidence. In all his childiſh, and in all his youthful diſtreſſes, a ſon ſhould be habitually inclined

to turn to his father as to his *moſt indulgent friend.* "Apply to me if ever you get into "any difficulties, and you will always find me "your moſt indulgent friend," were the words of a father to a child of twelve years old, pronounced with ſuch encouraging benevolence, that they were never forgotten by the perſon to whom they were addreſſed.

Before a young man goes into the world, it will be a great advantage to him to have ſome ſhare in the management of his father's-affairs; by laying out money for another perſon he will acquire habits of care, which will be uſeful to him afterwards in his own affairs. A father, who is building, or improving grounds, who is carrying on works of any ſort, can eaſily allot ſome portion of the buſineſs to his ſon, as an exerciſe for his judgment and prudence. He ſhould hear and ſee the eſtimates of workmen, and he ſhould, as ſoon as he has collected the neceſſary facts, form eſtimates of his own, before he hears the calculation of others: this power of eſtimating will be of great advantage to gentlemen, it will circumſcribe their wiſhes,

and it will protect them againſt the low frauds of deſigning workmen.

It may ſeem trivial, but we cannot forbear to adviſe young people to read the newſpapers of the day regularly: they will keep up by theſe means with the current of affairs, and they will exerciſe their judgment upon intereſting buſineſs, and large objects. The ſooner boys acquire the ſort of knowledge neceſſary for the converſation of ſenſible men the better; they will be the leſs expoſed to feel falſe ſhame. Falſe ſhame, the conſtant attendant upon ignorance, often leads young men into imprudent expences; when, upon any occaſion, they do not know by any certain calculation to what any expence may amount, they are aſhamed to inquire minutely. From another ſort of weakneſs they are aſhamed to reſiſt the example or importunity of numbers; againſt this weakneſs, the ſtrong deſire of preſerving the good opinion of eſtimable friends is the beſt preſervative. The taſte for the eſteem of ſuperior characters cures the mind of fondneſs for vulgar applauſe.

We have in the very firſt chapter of this book ſpoken of the danger of the paſſion for gaming, and the precautions that we have recommended in early education will, it is hoped, prevent the diſorder from appearing in our pupils as they grow up. Occupations for the underſtanding, and objects for the affections, will preclude the neceſſity of the violent ſtimulus of the gaming table. It may be ſaid, that many men of ſuperior abilities, and of generous ſocial tempers, become gameſters. They do ſo, becauſe they have exhauſted other pleaſures, and becauſe they have been accuſtomed to ſtrong excitements. Such excitements do not become neceſſary to happineſs, till they have been made habitual.

There was an excellent Eſſay on Projects, publiſhed ſome years ago by an anonymous writer, which we think would make a proper impreſſion upon young perſons of good ſenſe. We do not wiſh to repreſs the generous enterpriſing ardour of youth, nor to confine the ideas to the narrow circle of which ſelf muſt be the centre. Calculation will ſhew what can be

done, and how it can be done; and thus the individual, without injury to himſelf, may, if he wiſh it, ſpeculate extenſively for the good of his fellow creatures.

It is ſcarcely poſſible, that the mean paſſion of avarice ſhould exiſt in the mind of any young perſon who has been tolerably well educated; but too much pains cannot be taken to preſerve that domeſtic felicity, which ariſes from entire confidence and ſatisfaction amongſt the individuals of a family with regard to property. Exactneſs in accounts and in buſineſs relative to property, far from being unneceſſary amongſt friends and relations, are, we think, peculiarly agreeable, and eſſential to the continuance of frank intimacy. We ſhould, whilſt our pupils are young, teach them a love for exactneſs about property; a reſpect for the rights of others, rather than a tenacious anxiety about their own. When young people are of a proper age to manage money and property of their own, let them know preciſely what they can annually ſpend; in whatever form they receive an income, let that income be certain: if pre-

ſents of pocket money or of dreſs are from time to time made to them, this creates expectation and uncertainty in their minds. All perſons who have a fluctuating revenue are diſpoſed to be imprudent and extravagant. It is remarkable, that the Weſt-Indian planters, whoſe property is a kind of lottery, are extravagantly diſpoſed to ſpeculation; in the hopes of a favourable ſeaſon they live from year to year in unbounded profuſion. It is curious to obſerve, that the propenſity to extravagance exiſts in thoſe who enjoy the greateſt affluence, and in thoſe who have felt the greateſt diſtreſs. Thoſe who have little to loſe are reckleſs about that little; and any uncertainty as to the tenure of property, or as to the rewards of induſtry, immediately operates, not only to depreſs activity, but to deſtroy prudence. "Prudence," ſays Mr. Edwards, "is a term that has no place "in the negro vocabulary; inſtead of truſting "to what are called the *ground proviſions*, "which are ſafe from the hurricanes, the ne-"groes, in the cultivation of their *own* lands, "truſt more to plantain-groves, corn, and other

"vegetables that are liable to be deſtroyed by "ſtorms. When they earn a little money, they "immediately gratify their palate with ſalted "meats and other proviſions, which are to them "delicacies. The idea of accumulating, and "of being economic in order to accumulate, is "unknown to theſe poor ſlaves, who hold their "lands by the moſt uncertain of all tenures*." We are told, that the *proviſion ground*, the creation of the negro's induſtry, and the hope of his life, is ſold by public auction to pay his maſter's debts. Is it wonderful that the term prudence ſhould be unknown in the negro vocabulary?

The very pooreſt claſs of people in London, who feel deſpair, and who merely live to bear the evil of the day, are, it is ſaid, very little diſpoſed to be prudent. In a late publication, Mr. Colquhoun's "Treatiſe on the Police of "the Metropolis," he tells us, that the "chief "conſumption of oyſters, crabs, lobſters, pickled "ſalmon, &c. when firſt in ſeaſon, and when "the prices are high, is by the *loweſt* claſſes of

* V. Edwards's Hiſtory of the Weſt Indies.

"the people. The middle ranks, and thoſe "immediately under them, abſtain generally "from ſuch indulgencies until the prices are "moderate *."

Perhaps it may be thought, that the conſumption of oyſters, crabs, and pickled ſalmon, in London, or the management of the negro's *proviſion ground* in Jamaica, has little to do with a practical eſſay upon economy and prudence for children; but we hope, that we may be permitted to uſe theſe far fetched illuſtrations, to ſhew that the ſame cauſes act upon the mind independently of climate: they are mentioned here to ſhew, that the little *revenue* of young people ought to be fixed and certain.

When we recommend economy and prudence to our pupils, we muſt at the ſame time keep their hearts open to the pleaſures of generoſity; economy and prudence will put it in the power of the generous to give.

"The worth of every thing
"Is as much money as 'twill bring,"

* V. a note in page 32 of the Treatiſe on the Police of the Metropolis.

will never be the venal maxim of thoſe who underſtand the nature of philoſophic prudence. The worth of money is to be eſtimated by the number of real pleaſures which it can procure: there are many which are not to be bought by gold*; theſe will never loſe their pre-eminent value with perſons who have been educated both to reaſon and to feel.

* "Turn from the glittering bribe your ſcornful eye,
"Nor ſell for gold what gold can never buy."
JOHNSON's London.

We admire the ſentiment, notwithſtanding the *inaccuracy* of theſe lines.

CHAPTER XXV.

SUMMARY.

"THE general principle," that we ſhould aſſociate pleaſure with whatever we wiſh that our pupils ſhould purſue, and pain with whatever we wiſh that they ſhould avoid, forms, our readers will perceive, the baſis of our plan of education. This maxim, applied to the cultivation of the underſtanding, or of the affections, will, we apprehend, be equally ſucceſsful; virtues, as well as abilities, or what is popularly called genius, we believe to be the reſult of education, more than the gift of nature. A fond mother will tremble at the idea, that ſo much depends upon her own care in the early education of her children; but, even though

ſhe may be inexperienced in the art, ſhe may be perſuaded that patience and perſeverance will enſure her ſucceſs: even from her timidity we may propheſy favourably; for, in education, to know the danger is often to avoid it. The firſt ſteps require rather caution and gentle kindneſs, than any difficult or laborious exertions; the female ſex are from their ſituation, their manners, and talents, peculiarly ſuited to the ſuperintendence of the early years of childhood. We have therefore, in the firſt chapters of the preceding work, endeavoured to adapt our remarks principally to female readers, and we ſhall think ourſelves happy if any anxious mother feels their practical utility.

In the chapters on Toys, Taſks, and Attention, we have attempted to ſhew how the inſtruction and amuſements of children may be ſo managed as to coincide with each other. *Play*, we have obſerved, is only a change of occupation, and toys, to be permanently agreeable to children, muſt afford them continued employment. We have declared war againſt *taſks*, or rather againſt the train of melancholy ideas

which, aſſociated with this word, uſually render it odious to the ears of the diſguſted ſcholar. By kind patience, and well-timed, diſtinct, and, above all, by ſhort leſſons, a young child may be initiated in the myſteries of learning, and in the firſt principles of knowledge, without fatigue, or puniſhment, or tears. No matter how little be learned in a given time, provided the pupil be not diſguſted; provided the wiſh to improve be excited, and the habits of attention be acquired. Attention we conſider as the faculty of the mind which is eſſential to the cultivation of all its other powers.

It is eſſential to ſucceſs in what are called accompliſhments, or talents, as well as to our progreſs in the laborious arts or abſtract ſciences. Believing ſo much to depend upon this faculty or habit, we have taken particular pains to explain the practical methods by which it may be improved. The general maxims, that the attention of young people ſhould at firſt be exerciſed but for very ſhort periods; that they ſhould never be urged to the point of fatigue; that pleaſure, eſpecially the great pleaſure of ſuc-

ceſs, ſhould be aſſociated with the exertions of the pupil; are applicable to children of all tempers. The care which has been recommended, in the uſe of words, to convey uniformly diſtinct ideas, will, it is hoped, be found advantageous. We have, without entering into the ſpeculative queſtion concerning the original differences of temper and genius, offered ſuch obſervations as we thought might be uſeful in the education of the attention of vivacious, and indolent children; whether their idleneſs or indolence proceed from nature, or from miſtaken modes of inſtruction, we have been anxious to point out means of curing their defects; and, from our ſucceſsful experience with pupils apparently of oppoſite diſpoſitions, we have ventured to aſſert with ſome confidence, that no parent ſhould deſpair of correcting a child's defects, that no preceptor ſhould deſpair of producing in his pupil the ſpecies of abilities which his education ſteadily tends to form. Theſe are encouraging hopes, but not flattering promiſes. Having juſt opened theſe bright views to parents, we have pauſed to warn them, that all their expec-

tations, all their cares will be in vain, unleſs they have ſufficient prudence and ſtrength of mind to follow a certain mode of conduct with reſpect to ſervants, and with reſpect to common acquaintance. More failures in private education have been occaſioned by the interference of ſervants and acquaintance, than from any other cauſe. It is impoſſible, we repeat it in the ſtrongeſt terms, it is impoſſible that parents can be ſucceſsful in the education of their children at home, unleſs they have ſteadineſs enough to reſiſt all interference from viſitors and acquaintance, who from thoughtleſs kindneſs, or a buſy deſire to adminiſter advice, are apt to counteract the views of a preceptor; and who often in a few minutes undo the work of years. When our pupils have formed their habits, and have reaſon and experience ſufficient to guide them, let them be left as free as air; let them chooſe their friends and acquaintance; let them ſee the greateſt variety of characters, and hear the greateſt variety of converſation and opinions: but whilſt they are children, whilſt they are deſtitute of the means to judge, their parents.

or preceptors muſt ſupply their deficient reaſon; and authority, without violence, ſhould direct them to their happineſs. They muſt ſee, that all who are concerned in their education agree in the means of governing them; in all their commands and prohibitions, in the diſtribution of praiſe and blame, of reward and puniſhment, there muſt be unanimity. Where there does not exiſt this unanimity in families; where parents have not ſufficient firmneſs to prevent the interference of acquaintance, and ſufficient prudence to keep children *from all clandeſtine communication with ſervants*, we earneſtly adviſe that the children be ſent to ſome public ſeminary of education. We have taken ſome pains to detail the methods by which all hurtful communication between children and ſervants in a well regulated family may be avoided, and we have aſſerted, from the experience of above twenty years, that theſe methods have been found not only practicable, but eaſy.

In the Chapters on Obedience, Temper, and Truth, the general principle, that pleaſure ſhould excite to exertion and virtue, and that

pain ſhould be connected with whatever we wiſh our pupils to avoid, is applied to practice with a minuteneſs of detail which we knew not how to avoid. Obedience we have conſidered as a relative, rather than as a poſitive virtue: before children are able to conduct themſelves, their obedience muſt be rendered habitual; obedience alters its nature as the pupil becomes more and more rational; and the only method to ſecure the obedience, the willing, enlightened obedience of rational beings, is to convince them by experience, that it tends to their happineſs. Truth depends upon example more than precept, and we have endeavoured to impreſs it on the minds of all who are concerned in education, that the firſt thing neceſſary to teach their pupils to love truth, is in their whole conduct to reſpect it themſelves. We have reprobated the artifices ſometimes uſed by preceptors towards their pupils; we have ſhewn that all confidence is deſtroyed by theſe deceptions. May they never more be attempted! May parents unite in honeſt deteſtation of theſe practices! Children are not fools, and they are not

to be governed like fools. Parents who adhere to the firm principle of truth, may be certain of the reſpect and confidence of their children. Children who never ſee the example of falſehood, will grow up with a ſimplicity of character, with an habitual love of truth, that muſt ſurpriſe preceptors who have ſeen the propenſity to deceit which early appears in children who have had the misfortune to live with ſervants, or with perſons who have the habits of meanneſs and cunning. We have adviſed, that children, before their habits are formed, ſhould never be expoſed to temptations to deceive; that no queſtions ſhould be aſked them which hazard their young integrity; that as they grow older they ſhould gradually be truſted; and that they ſhould be placed in ſituations where they may feel the advantages both of ſpeaking truth, and of obtaining a character for integrity. The perception of the utility of this virtue to the individual, and to ſociety, will confirm the habitual reverence in which our pupils have been taught to hold it. As young people become reaſonable, the nature of their habits and of

their education ſhould be explained to them, and their virtues, from being virtues of cuſtom, ſhould be rendered virtues of choice and reaſon. It is eaſier to confirm good habits by the conviction of the underſtanding, than to induce habits in conſequence of that conviction. This principle we have purſued in the chapter on Rewards and Puniſhments; we have not conſidered puniſhment as vengeance or retaliation, but as *pain inflicted with the reaſonable hope of procuring ſome future advantage to the delinquent, or to ſociety.* The ſmalleſt poſſible quantity of pain that can effect this purpoſe, we ſuppoſe, muſt, with all juſt and humane perſons, be the meaſure of puniſhment. This notion of puniſhment, both for the ſake of the preceptor and the pupil, ſhould be clearly explained as early as it can be made intelligible. As to rewards, we do not wiſh that they ſhould be bribes; they ſhould ſtimulate, without weakening the mind. The conſequences which naturally follow every ſpecies of good conduct, are the proper and beſt rewards that we can deviſe; children whoſe underſtandings are cul-

tivated, and whoſe tempers are not ſpoiled, will be eaſily made happy without the petty bribes which are adminiſtered daily to ill educated, ignorant, over ſtimulated, and conſequently, wretched and illhumoured children. Far from making childhood a ſtate of continual penance, reſtraint, and miſery, we wiſh that it ſhould be made a ſtate of uniform happineſs; that parents and preceptors ſhould treat their pupils with as much equality as their improving reaſon juſtifies. The views of children ſhould be extended to their future advantage*, and they ſhould conſider childhood as a part of their exiſtence, not as a certain number of years which muſt be paſſed over before they can enjoy any of the pleaſures of life, before they can enjoy any of the privileges of *grown up people*. Preceptors ſhould not accuſtom their pupils to what they call indulgence, but they ſhould give them the utmoſt degree of preſent pleaſure which is conſiſtent with their future advantage. Would it not be folly and cruelty to give preſent pleaſure at the expence of a much larger por-

* Emilius.

tion of future pain? When children acquire experience and reaſon, they rejudge the conduct of thoſe who have educated them; and their confidence and their gratitude will be in exact proportion to the wiſdom and juſtice with which they have been governed.

It was neceſſary to explain at large theſe ideas of rewards and puniſhments, that we might clearly ſee our way in the progreſs of education. After having determined, that our object is to obtain for our pupils the greateſt poſſible portion of felicity; after having obſerved, that no happineſs can be enjoyed in ſociety without the ſocial virtues, without the *uſeful* and the *agreeable* qualities; our view naturally turns to the means of forming theſe virtues, of enſuring theſe eſſential qualities. On our ſympathy with our fellow-creatures depend many of our ſocial virtues; from our ambition to excel our competitors ariſe many of our moſt *uſeful* and *agreeable* actions. We have conſidered theſe principles of action as they depend on each other, and as they are afterwards ſeparated. Sympathy and ſenſibility, uninformed

by reaſon, cannot be proper guides to action. We have endeavoured to ſhew how ſympathy may be improved into virtue. Children ſhould not ſee the deformed expreſſion of the malevolent paſſions in the countenance of thoſe who live with them: before the habits are formed, before ſympathy has any rule to guide itſelf, it is neceſſarily determined by example. Benevolence and affectionate kindneſs from parents to children firſt inſpire the pleaſing emotions of love and gratitude. Sympathy is not able to contend with paſſion or appetite: we ſhould therefore avoid placing children in painful competition with one another. We love thoſe from whom we receive pleaſure. To make children fond of each other, we muſt make them the cauſe of pleaſure to each other; we muſt place them in ſituations where no paſſion or appetite croſſes their natural ſympathy. We have ſpoken of the difference between tranſient, convivial ſympathy, and that higher ſpecies of ſympathy which, connected with eſteem, conſtitutes friendſhip. We have exhorted parents not to exhauſt imprudently the ſenſibility of their chil-

dren; not to laviſh careſſes upon infancy, and cruelly to withdraw kindneſs when their children have learned to expect the daily ſtimulus of affection. The idea of exerciſing ſenſibility we have endeavoured to explain, and to ſhew, that if we require premature gratitude and generoſity from young people, we ſhall only teach them affectation and hypocriſy. We have ſlightly touched on the dangers of exceſſive female ſenſibility, and have ſuggeſted, that uſeful, active employments, and the cultivation of the reaſoning faculty, render ſympathy and ſenſibility more reſpectable, and not leſs graceful.

In treating of vanity, pride, and ambition, we have been more indulgent to vanity than our *proud* readers will approve. We hope, however, not to be miſunderſtood; we hope that we ſhall not appear to be admirers of that mean and ridiculous foible, which is anxiouſly concealed by all who have any deſire to obtain eſteem. We cannot, however, avoid thinking, that it is abſurd to inſpire young people with a wiſh to excel, and at the ſame time to inſiſt

upon their repreſſing all expreſſions of ſatisfaction if they ſucceed. The deſire to obtain the good opinion of others is a ſtrong motive to exertion: this deſire cannot be diſcriminative in children before they have any knowledge of the comparative value of different qualities, and before they can eſtimate the conſequent value of the applauſe of different individuals. We have endeavoured to ſhew how, from appealing at firſt to the opinions of others, children may be led to form judgments of their own actions, and to appeal to their own minds for approbation. The ſenſe of duty and independent ſelf-complacency may gradually be ſubſtituted in the place of weak, ignorant vanity. There is not much danger that young people, whoſe underſtandings are improved, and who mix gradually with ſociety, ſhould not be able to repreſs thoſe offenſive expreſſions of vanity or pride, which are diſagreeable to the feelings of the impartial ſpectators. We ſhould rather let the vanity of children find its own level than attempt any artificial adjuſtments; they will learn propriety of manners from obſervation and experience; we

ſhould have patience with their early unciviliſed preſumption, leſt, by premature reſtraints, we check the energy of the mind, and induce the cold, feeble vice of hypocriſy. In their own family, among the friends whom they ought to love and eſteem, let children, with ſimple, unreſerved vivacity, expreſs the good opinion they have of themſelves. It is infinitely better that they ſhould be allowed this neceſſary expanſion of ſelf-complacency in the company of their ſuperiors, than that it ſhould be repreſſed by the cold hand of authority, and afterwards be diſplayed in the company of inferiors and ſycophants. We have endeavoured to diſtinguiſh between the proper and improper uſe of praiſe as a motive in education: we have conſidered it as a ſtimulus which, like all other excitements, is ſerviceable or pernicious, according to the degree in which it is uſed, and the circumſtances in which it is applied.

Whilſt we have thus been examining the general means of educating the heart and the underſtanding, we have avoided entering minutely into the technical methods of obtaining cer-

tain parts of knowledge. It was eſſential, in the firſt place, to ſhew, how the deſire of knowledge was to be excited: what acquirements are moſt deſirable, and how they are to be moſt eaſily obtained, are the next conſiderations. In the chapters on Books—Claſſical Literature and Grammar—Arithmetic and Geometry—Geography and Aſtronomy—Mechanics and Chemiſtry—we have attempted to ſhew, how a taſte for literature may early be infuſed into the minds of children, and how the rudiments of ſcience, and ſome general principles of knowledge, may be acquired, without diſguſting the pupil, or fatiguing him by unceaſing application. We have, in ſpeaking of the choice of books for children, ſuggeſted the general principles, by which a ſelection may be ſafely made; and by minute, but we hope not invidious criticiſm, we have illuſtrated our principles ſo as to make them practically uſeful.

The examination of M. Condillac's Cours d'Etude was meant to illuſtrate our own ſentiments, more than to attack a particular ſyſtem. Far from intending to depreciate this author,

we think moſt highly of his abilities; but we thought it neceſſary to point out ſome practical errors in his mode of inſtruction. Without examples from real life, we ſhould have wandered, as many others of far ſuperior abilities have already wandered, in the ſhadowy land of theory.

In our chapters on Grammar, Arithmetic, Mechanics, Chemiſtry, &c. all that we have attempted has been to recall to preceptors the difficulties which they once experienced, and to trace thoſe early footſteps which time inſenſibly obliterates. How few poſſeſs, like Faruknaz in the Perſian tale, the happy art of tranſfuſing their own ſouls into the boſoms of others!

We ſhall not pity the reader whom we have dragged through Garretſon's Exerciſes, if we can ſave one trembling little pilgrim from that "ſlough of deſpond." We hope that the patient, quiet mode of teaching claſſical literature, that we have found to ſucceed in a few inſtances, may be found equally ſucceſsful in others; we are not conſcious of having exaggerated, and we ſincerely wiſh that ſome intelligent, be-

benevolent parents may verify our experiments upon their own children.

The great difficulty which has been found in attempts to inſtruct children in ſcience has, we apprehend, ariſen from the theoretic manner in which preceptors have proceeded. The knowledge that cannot be immediately applied to uſe, has no intereſt for children, has no hold upon their memories; they may learn the principles of mechanics, or geometry, or chemiſtry; but if they have no means of applying their knowledge, it is quickly forgotten, and nothing but the diſguſt connected with the recollection of uſeleſs labour remains in the pupil's mind. It has been our object, in treating of theſe ſubjects, to ſhew how they may be made intereſting to young people; and for this purpoſe we ſhould point out to them, in the daily, active buſineſs of life, the practical uſe of ſcientific knowledge. Their ſenſes ſhould be exerciſed in experiments, and theſe experiments ſhould be ſimple, diſtinct, and applicable to ſome object in which our pupils are immediately intereſted. We are not ſolicitous about the quan-

tity of knowledge that is obtained at any given age, but we are extremely anxious that the deſire to learn ſhould continually increaſe, and that whatever is taught ſhould be taught with that perſpicuity, which improves the general underſtanding. If the firſt principles of ſcience are once clearly underſtood, there is no danger that the pupil ſhould not, at any ſubſequent period of his life, improve his practical ſkill, and increaſe his knowledge to whatever degree he thinks proper.

We have hitherto proceeded without diſcuſſing the comparative advantages of public or private education. Whether children are to be educated at home, or to be ſent to public ſeminaries, the ſame courſe of education, during the firſt years of their lives, ſhould be purſued; and the preparatory care of parents is eſſential to the ſucceſs of the public preceptor. We have admitted the neceſſity of public ſchools, and, in the preſent ſtate of ſociety, we acknowledge that many parents have it not in their power properly to ſuperintend the private education of a family. We have earneſtly adviſed

parents not to attempt private education without first calculating the difficulties of the undertaking; we have pointed out that, by co-operating with the public inſtructor, parents may aſſiſt in the formation of their children's characters, without undertaking the ſole management of their claſſical inſtruction. A private education, upon a calm ſurvey of the advantages of both ſyſtems, we prefer, becauſe more is in the power of the private than of the public inſtructor. One uniform courſe of experience may be preſerved, and no examples, but thoſe which we wiſh to have followed, need be ſeen by thoſe children who are brought up at home. When we give our opinion in favour of private education, we hope that all we have ſaid on ſervants and on acquaintance will be full in the reader's recollection. No private education, we repeat it, can ſucceed without perfect unanimity, conſiſtency, and ſteadineſs, amongſt all the individuals in the family.

We have recommended to parents the higheſt liberality as the higheſt prudence, in rewarding the care of enlightened preceptors. Ye great

and opulent parents, condeſcend to make your children happy; provide for yourſelves the cordial of domeſtic affection againſt "that ſickneſs "of long life—old age."

In what we have ſaid of governeſſes, maſters, and the value of female accompliſhments, we have conſidered not only what is the faſhion of to-day, but rather what is likely to be the faſhion of ten or twenty years hence. Mothers will look back, and obſerve how much the ſyſtem of female education has altered within their own memory; and they will ſee, with "the prophe-"tic eye of taſte," what may probably be the faſhion of another ſpring—another race*. We have endeavoured to ſubſtitute the words *domeſtic happineſs* inſtead of the preſent terms, "ſucceſs in the world—fortunate eſtabliſh-"ments," &c. This will lead, perhaps, at firſt, to ſome confuſion in the minds of thoſe who have been long uſed to the old terms; but the new vocabulary has its advantages; the young and unprejudiced will, perhaps, per-

* "Another ſpring, another race ſupplies."
POPE'S Homer.

ceive them, and maternal tenderneſs will eſtimate with more preciſion, but not with leſs eagerneſs, the chances of happineſs according to the new and old tables of calculation.

Sectary-metaphyſicians, if any of this deſcription ſhould ever deign to open a book that has a *practical* title, will, we fear, be diſappointed in our chapters on Memory—Imagination and Judgment. They will not find us the partizans of any ſyſtem, and they will probably cloſe the volume with ſupercilious contempt. We endeavour to conſole ourſelves by the hope that men of ſenſe and candour will be more indulgent, and will view with more complacency an attempt to collect from all metaphyſical writers thoſe obſervations, which can be immediately of practical uſe in education. Without any pompous pretenſions, we have given a ſketch of what we have been able to underſtand and aſcertain of the hiſtory of the mind. On ſome ſubjects the wiſeſt of our readers will at leaſt give us credit for knowing that we are ignorant.

We do not ſet that high value upon Memory,

which ſome preceptors are inclined to do. From all that we have obſerved, we believe that few people are naturally deficient in this faculty; though in many it may have been ſo injudiciouſly cultivated as to induce the ſpectators to conclude, that there was ſome original defect in the retentive power. The recollective power is leſs cultivated than it ought to be, by the uſual modes of education; and this is one reaſon why ſo few pupils riſe above mediocrity. They lay up treaſures for moths to corrupt; they acquire a quantity of knowledge, they learn a multitude of words by rote, and they cannot produce a ſingle fact, or a ſingle idea, in the moment when it is wanted: they collect, but they cannot combine. We have ſuggeſted the means of cultivating the inventive faculty at the ſame time that we ſtore the memory; we have ſhewn, that on the order in which ideas are preſented to the mind depends the order in which they will recur to the memory; and we have given examples from the hiſtories of great men and little children of the reciprocal aſſiſt-

ance, which the memory and the inventive powers afford each other.

In ſpeaking of Taſte it has been our wiſh to avoid prejudice and affectation. We have adviſed that children ſhould early be informed, that the principles of taſte depend upon caſual, arbitrary, variable aſſociations. This will prevent our pupils from falling into the vulgar error of being amazed and *ſcandaliſed* at the taſtes of other times and other nations. The beauties of nature and the productions of art, which are found to be moſt generally pleaſing, we ſhould aſſociate with pleaſure in the mind: but we ought not to expect that children ſhould admire thoſe works of imagination which ſuggeſt inſtead of expreſſing ideas. Until children have acquired the language, until they have all the neceſſary trains of ideas, many of the fineſt ſtrokes of genius in oratory, poetry, and painting, muſt to them be abſolutely unintelligible.

In a moral point of view we have treated of the falſe aſſociations which have early influence upon the imagination, and produce the furious

paſſions and miſerable vices. The falſe aſſociations which firſt inſpire the young and innocent mind with the love of wealth, or power, or of what is falſely called pleaſure, are pointed out; and ſome practical hints are offered to parents, which it is hoped may tend to preſerve their children from theſe moral inſanities.

We do not think that perſons who are much uſed to children will quarrel with us for what we have ſaid of early prodigies of wit. People, who merely talk to children for the amuſement of the moment, may admire their "lively non-"ſenſe," and will probably think the ſimplicity of mind that we prefer is downright ſtupidity. The habit of reaſoning is ſeldom learned by children who are much taken notice of for their ſprightly repartees; but we have obſerved, that children, after they have learned to reaſon, as they grow up and become acquainted with the manners and cuſtoms of the world, are by no means deficient in talents for converſation, and in that ſpecies of wit which depends upon the perception of analogy between ideas, rather

than a play upon words. At all events we would rather that our pupils ſhould be without the brilliancy of wit, than the ſolid and eſſential power of judgment.

To cultivate the judgment of children, we muſt begin by teaching them accurately to examine and compare ſuch external objects as are immediately obvious to their ſenſes; when they begin to argue, we muſt be careful to make them explain their terms and abide by them. In books and converſation, they muſt avoid all bad reaſoning, nor ſhould they ever be encouraged in the quibbling habit of arguing for victory.

Prudence we conſider as compounded of judgment and reſolution. When we teach children to reflect upon and compare their own feelings, when we frequently give them their *choice* in things that are intereſting to them, we educate them to be prudent. We cannot teach this virtue until children have had ſome experience; as far as their experience goes their prudence may be exerciſed. Thoſe who re-

flect upon their own feelings, and find out exactly what it is that makes them happy, are taught wiſdom by a very few diſtinct leſſons. Even fools, it is ſaid, grow wiſe by experience, but it is not until they grow old under her rigid diſcipline.

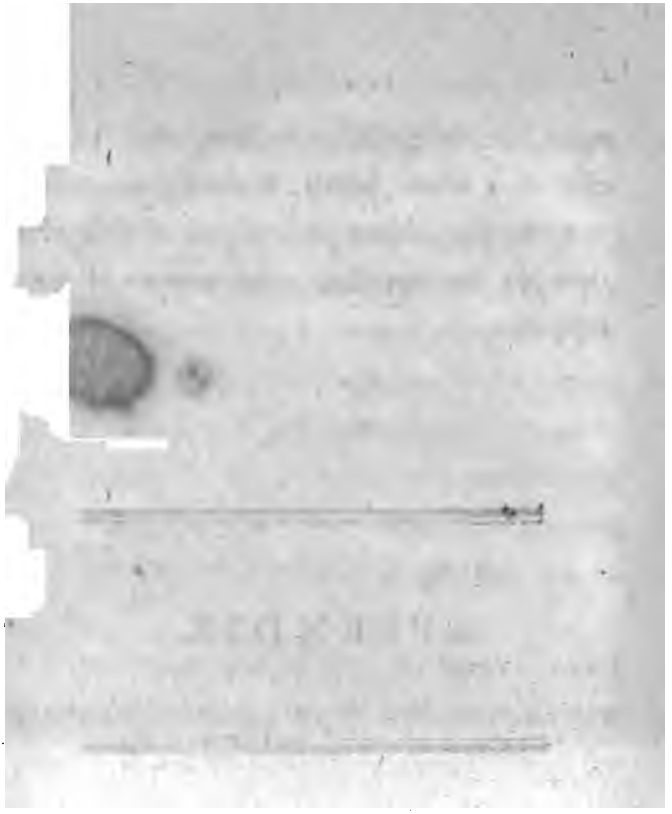
Economy is uſually underſtood to mean prudence in the management of money; we have uſed this word in a more enlarged ſenſe. Children, we have obſerved, may be economic of any thing that is truſted to their charge; until they have ſome uſe for money they need not be troubled or tempted with it; if all the neceſſaries and conveniencies of life are provided for them, they muſt ſpend whatever is given to them as pocket money in ſuperfluities. This habituates them early to extravagance. We do not apprehend that young people ſhould be entruſted with money, till they have been ſome time uſed to manage the money buſineſs of others. They may be taught to keep the accounts of a family, from which they will learn the price and value of different commodities. All this our readers will perceive is nothing

more than the application of the reaſoning powers to different objects.

We have thus ſlightly given a ſummary of the chapters in the preceding work to recall the whole in a connected view to the mind; a few ſimple principles run through the different parts; all the purpoſes of practical education tend to one diſtinct object; to render our pupils good and wiſe, that they may enjoy the greateſt poſſible ſhare of happineſs at preſent and in future.

Parental care and anxiety, the hours devoted to the inſtruction of a family, will not be thrown away. If parents have the patience to wait for their reward, that reward will far ſurpaſs their moſt ſanguine expectations; they will find in their children agreeable companions, ſincere and affectionate friends. Whether they live in retirement, or in the buſy world, they will feel their intereſt in life increaſe, their pleaſures multiplied by ſympathy with their beloved pupils; they will have a happy home. How much is compriſed in that ſingle expreſſion! The gratitude of their pupils will continually

recall the delightful reflection, that the felicity of a whole family is their own work; and that the virtues and talents of their children are the neceſſary conſequences of good education.



APPENDIX.

NOTES,

CONTAINING

CONVERSATIONS AND ANECDOTES OF CHILDREN.

SEVERAL years ago a mother*, who had a large family to educate, and who had turned her attention with much ſolicitude to the ſubject of education, re-

* Honora Edgeworth, daughter of Edward Sneyd, Eſq. of Lichfield. As this lady's name has been mentioned in a monody on the death of Major Andrè, we take this opportunity of correcting a miſtake that occurs in a note to that performance.

"Till buſy rumour chaſed each pleaſing dream,
"And quenched the radiance of the ſilver beam."
Monody on Major Andrè.

The note on theſe lines is as follows:

"The tidings of Honora's marriage. Upon that event Mr. "Andrè quitted his profeſſion as a merchant; and joined our army "in America."

Miſs Honora Sneyd was married to Mr. Edgeworth in July 1773, and the date of Major Andrè's firſt commiſſion in the Welſh Fuſileers is March 4th, 1771.

ſolved to write notes from day to day of all the trifling things which mark the progreſs of the mind in childhood. She was of opinion, that the art of education ſhould be conſidered as an experimental ſcience, and that many authors of great abilities had miſtaken their road by following theory inſtead of practice. The title of "*Practical Education*" was choſen by this lady, and prefixed to a little book for children, which ſhe began, but did not live to finiſh. The few notes which remain of her writing are preſerved, not only merely out of reſpect for her memory, but becauſe it is thought that they may be uſeful. Her plan of keeping a regiſter of the remarks of children has at intervals been purſued in her family; a number of theſe anecdotes have been interſperſed in this work, a few which did not ſeem immediately to ſuit the didactic nature of any of our chapters remain, and with much heſitation and diffidence are offered to the public. We have ſelected ſuch anecdotes as may in ſome meaſure illuſtrate the principles that we have endeavoured to eſtabliſh; and we hope that from theſe trifling, but genuine converſations of children and parents, the reader will diſtinctly perceive the difference between practical and theoretic education. As ſome further apology for offering them to the public, we recur to a paſſage in Dr. Reid's * Eſſays, which encourages an attempt to ſtudy minutely the minds of children.

"If we could obtain a diſtinct and full hiſtory of all "that hath paſſed in the mind of a child from the be-"ginning of life and ſenſation till it grows up to the

* This has been formerly quoted in the preface to Parent's Aſſiſtant.

"uſe of reaſon, how its infant faculties begin to work, "and how they brought forth and ripened all the va- "rious notions, opinions, and ſentiments, which we "find in ourſelves when we come to be capable of re- "flection, this would be a treaſure of natural hiſtory "which would probably give more light into the hu- "man faculties, than all the ſyſtems of philoſophers "about them from the beginning of the world."

The reader, we hope, will not imagine that we think we can preſent him with this treaſure of natural hiſtory; we have only a few ſcattered notices, as Bacon would call them, to offer: perhaps, even this ſlight attempt may awaken the attention of perſons equal to the undertaking; if able preceptors and parents would purſue a ſimilar plan, we might, in time, hope to obtain a full hiſtory of the infant mind.

It may occur to parents, that writing notes of the remarks of children would leſſen their freedom and ſimplicity in converſation; this would certainly be the caſe if care were not taken to prevent the pupils from thinking of the *note-book* *. The following notes were never ſeen by the children who are mentioned in them, and though it was in general known in the family that ſuch notes were taken, the particular remarks that were written down were never known to the pupils; nor was any curioſity excited upon this ſubject. The attempt would have been immediately abandoned, if we had perceived that it produced any bad conſequences. The ſimple language of childhood has been preſerved without alteration in the following notes; and as we could

* The anecdotes mentioned in the *preceding* pages were read to the children with the reſt of the work.

not deviſe any better arrangement, we have followed the order of time, and we have conſtantly inſerted the ages of the children, for the ſatisfaction of preceptors and parents, to whom alone theſe infantine anecdotes can be intereſting. We ſay nothing farther as to their accuracy; if the reader does not ſee in the anecdotes themſelves internal marks of veracity, all we could ſay would be of no avail.

X—— (a girl of five years old) aſked why a piece of paper fell quickly to the ground when rumpled up, why ſo ſlowly when opened.

Y—— (a girl of three years and a half old) ſeeing her ſiſter taken care of and nurſed when ſhe had chilblains, ſaid, that ſhe wiſhed to have chilblains.

Z—— (a girl between two and three), when her mother was putting on her bonnet, and when ſhe was going out to walk, looked at the cat, and ſaid with a plaintive voice, "Poor Puſſey! You have no bonnet, "Puſſey!"

X—— (5 years old) aſked why ſhe was as tall as the trees when ſhe was far from them.

Z—— (4 years old) went to church, and when ſhe was there ſaid, "Do thoſe mens do every thing better "than we; becauſe they talk ſo loud, and I think they "read."

It was a country church, and people ſang; but the child ſaid, "She thought they did'nt ſing, but roared, "becauſe they were ſhut up in that place, and didn't "like it."

L—— (a boy between 3 and 4 years old) was ſtanding before a grate with coals in it, which were not lighted; his mother ſaid to him, "What is the uſe of "coals?"

L——. "To put in your grate."

Mother. "Why are they put there?

L——. "To make fire."

Mother. "How do they make fire"

L——. "Fire is brought to them?"

Mother. "How is fire brought to them?"

L——. "Fire is brought to them upon a candle "put to them."

L——, a little while afterwards, aſked leave to light a candle, and when a bit of paper was given to him for that purpoſe, ſaid, "But, mother, may I take "ſome light out of your fire to put to it?"

This boy had more exact ideas of property than Prometheus had.

Z——, when ſhe was between five and ſix, ſaid, "Water keeps *things* alive, and eating keeps alive chil- "dren."

Z—— (ſame age), meddling with a fly, ſaid, "ſhe "did not hurt it." "Were you ever a fly? ſaid her mother. "Not *that I know of*," anſwered the child.

Z——'s father ſent her into a room where there were ſome knives and forks. "If you meddle with "them," ſaid he, "you may cut yourſelf."

Z——. "I won't cut myſelf."

Father. "Can you be ſure of that?"

Z——. "No, but I can take care."

Father. "But if you ſhould cut yourſelf, would it "do you any good!"

Z——. "No—Yes."

Father. "What good?"

Z——. "Not to do ſo another time."

—— (ſame age.) Z——'s mother ſaid to her, "Will you give me ſome of your fat cheeks?"

Z——. "No, I cannot, it would hurt me."

Mother. "But if it would not hurt you, would "you give me ſome?"

Z——. "No, it would make two holes in my "cheeks that would be diſagreeable."

A ſentimental mother would perhaps have been diſpleaſed with the ſimple anſwers of this little girl. (V. Sympathy and Senſibility.)

The following memorandums of Mrs. H——E——'s (dated 1779) have been of great uſe to us in our chapter of Toys.

"The playthings of children ſhould be calculated "to fix their attention, that they may not get a habit "of doing any thing in a liſtleſs manner."

"There are periods as long as two or three months "at a time, in the lives of young children, when their "bodies appear remarkably active and vigorous, and "their minds dull and inanimate; they are at theſe "times incapable of comprehending any new ideas, "and forgetful of thoſe they have already received. "When this diſpoſition to exert the bodily faculties "ſubſides, children ſhew much reſtleſſneſs and diſtaſte "for their uſual plays. The interval between meals "appear long to them, they aſk a multitude of queſtions, and are continually looking forward to ſome "future good; if at this time any mental employment "be preſented to them, they receive it with the utmoſt "avidity, and purſue it with aſſiduity; their minds "appear to have acquired additional powers from "having remained inactive for a conſiderable time." H. E.

(January 1781.) Z——, (7 years old,) "What "are bones made of? My father ſays it has not been

"found out. If I ſhould find it out, I ſhall be wiſer "in that reſpect that my father."

(April 8th.) Z——. "What becomes of the blood "when people die?"

Father. "It ſtays in the body."

Z——. "I thought it went out of the body; be- "cauſe you told me that what we eat was turned into "blood, and that blood nouriſhed the body and kept "it alive."

Father. "Yes, my dear; but blood muſt be in "motion to keep the body alive; the heart moves the "blood through the arteries and veins, and the blood "comes back again to the heart. We don't know how "this motion is performed. What we eat is not "turned at once into blood; it is diſſolved by ſome- "thing in the ſtomach, and is turned into ſomething "white like milk, which is called chyle; the chyle "paſſes through little pipes in the body called lacteals, "and into the veins and arteries, and becomes blood. "But I don't know how. I will ſhew you the inſide "of the body of a dead pig; a pig's inſide is ſomething "like that of a man."

Z——, (ſame age.) When her father had given her an account of a large ſtone that was thrown to a conſiderable diſtance from Mount Veſuvius at the time of an eruption, ſhe aſked, how the air could keep a large ſtone from falling, when it would not ſupport her weight.

Z——, (ſame age) when ſhe was reading the Roman hiſtory, was aſked, what ſhe thought of the conduct of the wife of Aſdrubal. Z—— ſaid ſhe did not like her. She was aſked why. The firſt reaſon Z—— gave for not liking the lady was, "that ſhe ſpoke

"loud;" the next, "that ſhe was unkind to her huſ-"band, and killed her children."

We regret (though perhaps our readers may rejoice) that ſeveral years elapſed in which theſe little notes of the remarks of children were diſcontinued. In 1792 the following notes were begun by one of the ſame family.

(March 92.) Mr. —— ſaw an Iriſh giant at Briſtol, and when he came home Mr. —— gave his children a deſcription of the giant. His height, he ſaid, was about eight feet. S—— (a boy of five years old) aſked whether this giant had lived much longer than other men.

Father. "No: why did you think he had lived "longer than other men!"

S——. "Becauſe he was ſo much taller."

Father. "Well."

S——. "And he had ſo much more time to grow."

Father. "People, after a certain age, do not grow "any more. Your ſiſter M——, and I, and your "mother, have not grown any taller ſince you can "remember, have we?"

S——. "No; but I have, and B——, and C——."

Father. "Yes; you are children. Whilſt people "are growing they are called children; after they have "done growing, they are called men and women."

(April 92.) At tea-time, to-day, ſomebody ſaid that hot chocolate ſcalds worſe than hot tea or hot water. Mr. —— aſked his children if they could give any reaſon for this. They were ſilent.

Mr. ——. "If water be made as hot as it can be

"made, and if chocolate be made as hot as it can be "made, the chocolate will ſcald you the moſt. Can "you tell me why?"

C——, (a girl between 8 and 9 years old.) "Be- "cauſe there is oil, I believe, in the chocolate; and "becauſe it is thicker, and the parts cloſer together, "than in tea or water."

Father. "What you ſay is true; but you have not "explained the reaſon yet. Well, H——."

H——, (a boy between 9 and 10.) "Becauſe "there is water in the bubbles."

Father. "Water in the bubbles I don't underſtand. "Water in what bubbles?"

H——. "I thought I had always ſeen, when wa- "ter boils, that there are a great many little bubbles "upon the top."

Father. "Well; but what has that to do with the "queſtion I aſked you?"

H——. "Becauſe the cold air that was in the "bubbles would cool the water next them, and then" —(ſhe was quite confuſed, and ſtopped.)

B—— (a girl of 10 or 11 years old) ſpoke next. "I "thought that chocolate was much thicker than water, "and there were more parts, and thoſe parts were "cloſer together, and each could hold but a certain "quantity of heat; and therefore chocolate could be "made hotter than water."

Father. "That is a good chemical idea. You ſup- "poſe that the chocolate and tea can be *ſaturated* with "heat. But you have none of you yet told me the "reaſon."

The children were all ſilent.

Father. "Can water ever be made hotter than "boiling hot?"

B——. "No."

Father. "Why?"

B——. "I don't know."

Father. "What happens to water when it does "what we call *boil?*"

H——. "It bubbles, and makes a ſort of noiſe."

B——. "It turns into ſteam or vapour, I believe."

Father. "All at once?"

B——. "No: but what is at the top firſt?"

Father. "Now you ſee the reaſon why water can't "be made hotter than boiling hot; for if a certain "degree of heat be applied to it, it changes into the "form of vapour, and flies off. When I was a little "boy, I was once near having a dreadful accident, "I had not been taught the nature of water, and "ſteam, and heat, and evaporation; and I wanted "to fill a wet hollow ſtick with melted lead. The mo-"ment I poured the lead into the ſtick, the water in "the wood turned into vapour ſuddenly, and the lead "was thrown with great violence to the ceiling: my "face narrowly eſcaped. So you ſee people ſhould "know what they are about before they meddle with "things.——But now as to the chocolate."

No one ſeemed to have any thing to ſay about the chocolate.

Father. "Water, you know, boils with a certain "degree of heat. Will oil, do you think, boil with "the ſame heat?"

C——. "I don't underſtand."

Father. "In the ſame *degree of heat* (you muſt learn

"to accuſtom yourſelf to thoſe words, though they "ſeem difficult to you)—In the ſame heat do you "think water or oil would boil the ſooneſt?"

None of the children knew.

Father. "Water would boil the ſooneſt. More "heat is neceſſary to make oil boil, or turn into va-"pour, than to make water evaporate. Do you know "of any thing which is uſed to *determine*, to *ſhew*, and "*mark* to us the different degrees of heat?"

B——. "Yes; a thermometer."

Father. "Yes: thermometer comes from two "Greek words, one of which ſignifies heat, and the "other meaſure. Meter, means meaſure. Thermo-"*meter* a meaſurer of heat; baro*meter* a meaſurer of "the weight of the air; hygro*meter* a meaſurer of "moiſture. Now, if you remember, on the thermo-"*meter* you have ſeen theſe words at a certain mark, "*the heat of boiling water*. The quickſilver, in a ther-"mometer, riſes to that mark when it is expoſed to "that degree of heat which will make the water turn "into vapour. Now the degree of heat which is ne-"ceſſary to make oil evaporate is not marked on the "thermometer; but it requires ſeveral degrees more "heat to evaporate oil than is neceſſary to evaporate "water.—So now you know that chocolate, containing "more oil than is contained in tea, it can be made "hotter before it turns into vapour."

Children may be led to acquire a taſte for chemiſtry by ſlight hints in converſation.

(July 22d, 1794.) Father. "S——, can you tell "me what is meant by a body's falling?"

S——, (7 years old.) "A body's falling means a "body's dying, I believe."

Father. "By *body*, I don't mean a perſon, but "any thing. What is meant by any thing's falling?"

S——. "Coming down from a high place."

Father. "What do you mean by a high place?"

S——. "A place higher than places uſually are; "higher than the ground."

Father. "What do you mean by the ground?"

S——. "The earth."

Father. "What ſhape do you think the earth is?"

S——. "Round."

Father. "Why do you think it is round?"

S——. "Becauſe I have heard a great many peo- "ple ſay ſo."

Father. "The ſhadow.—It is ſo difficult to explain "to you, my dear, why we think that the earth is "round, that I will not attempt it *yet*."

It is better, as we have often obſerved, to avoid all *imperfect* explanations, which give children confuſed ideas.

(Auguſt 18th, 1794.) Maſter —— came to ſee us, and taught S—— to fiſh for minnows. It was explained to S—— that fiſhing with worms for baits tortures the worms. No other argument was uſed, no ſentimental exclamations made upon the occaſion; and S—— fiſhed no more, nor did he ever mention the ſubject again.

Children ſometimes appear cruel, when in fact they do not know that they give pain to animals.

(July 27th, 1794.) S—— ſaw a beautiful rainbow, and he ſaid, "I wiſh I could walk over that fine "arch."

This is one of the pleaſures of Ariel, and of the Sylphs in the Rape of the Lock. S—— was not

praiſed for a poetic wiſh, leſt he ſhould have learnt affectation.

(September 3d, 1794.) Mr. ——— attempted to explain to B——, H——, S——, and C——, the nature of inſurance, and the day afterwards he aſked them to explain it to him. They none of them underſtood it except B——, who could not, however, explain it, though ſhe did underſtand it. The terms were all new to them, and they had no ſhips to inſure.

(September 19th.) At dinner to-day, S—— (7 years old) ſaid to his ſiſter C——, "What is the name "of that man that my father was talking to that "founded like Idem, Iſdal, or Izard, I believe." "Izard!" ſaid ſomebody at table, "that name ſounds "like Lizard; yes, there is a family of the Lizards in "the Guardian."

S——. "A real family?"

Mr. ——. "No, my dear; a name given to ſuppoſed characters."

M——. "Wasn't it one of the young Lizards who "would prove to his mother when ſhe had juſt ſcalded "her fingers with boiling water out of the tea-kettle, "that there's no more heat in fire that heat's you, "than pain in the ſtick that beats you?"

Mr. ——. "Yes; I think that character has done "harm, it has thrown a ridicule upon metaphyſical "diſquiſitions."

Mrs. ——. "Are not thoſe lines about the pain in "the ſtick in the "Letter * to my Siſters at Crux "Eaſton," in Dodſley's poems?"

* Soame Jennings's.

Mr. ——. "Yes; but they come originally from "Hudibras, you know."

In ſlight converſations, ſuch as theſe, which are not contrived for the purpoſe, the curioſity of children is awakened to literature; they ſee the uſe which people make of what they read, and they learn to talk freely about what they meet with in books. What a variety of thoughts came in a few inſtants from S——'s queſtion about *Idem!*

(November 8th, 1795.) Mr. —— read the firſt chapter of Hugh Trevor to us; which contains the hiſtory of a paſſionate farmer, who was in a rage with a gooſe becauſe it would not eat ſome oats which he offered it. He tore off the wings of the animal, and twiſted off its neck; he bit off the ear of a pig becauſe it ſqueaked when he was ringing it; he ran at his apprentice Hugh Trevor with a pitchfork, becauſe he ſuſpected that he had drunk ſome milk; the pitchfork ſtuck in a door. Hugh Trevor then told the paſſionate farmer, that the dog Jowler had drunk the milk, but that he would not tell this before, becauſe he knew his maſter would have hanged the dog.

S—— admired Hugh Trevor for this extremely.

The farmer in his lucid intervals is extremely penitent, but his fit of rage ſeizes him again one morning when he ſees ſome milk boiling over. He flies at Hugh Trevor, and ſtabs him with a claſp knife, with which he had been cutting bread and cheeſe; the knife is ſtopped by half a crown which Hugh Trevor had ſewed in his waiſtcoat; *this half crown he had found on the highway a few days before.*

It was doubted by Miſs M. S—— whether this laſt was a proper circumſtance to be told to children, becauſe it might lead them to be diſhoneſt.

The evening after Mr. —— had read the ſtory, he aſked S—— to repeat it to him. S—— remembered it, and told it diſtinctly till he came to the half crown; at this circumſtance he heſitated. He ſaid he did not know how Hugh Trevor "*came to keep it*," though he had found it. He wondered that Hugh Trevor did not aſk about it.

Mr. —— explained to him, that when a perſon finds any thing upon the highway, he ſhould put it into the hand of the public cryer, who ſhould *cry it*. Mr. —— was not quite certain whether the property found on the high road, after it has been *cried* and no owner appears, belongs to the king, or to the perſon who finds it. Blackſtone's Commentaries were conſulted; the paſſage concerning *Treaſure-trove* was read to S——; it is written in ſuch diſtinct language that he underſtood it completely.

Young people may acquire much knowledge by conſulting books, at the moment that any intereſt is excited by converſation upon particular ſubjects.

Explanations about the *law* were detailed to S——, becauſe he was intended for a lawyer. In converſation we may direct the attention of children to what are to be their profeſſional ſtudies, and we may aſſociate entertainment and pleaſure with the idea of their future profeſſion.

The ſtory of the paſſionate farmer in Hugh Trevor was thought to be a good leſſon for children of vivacious tempers, as it ſhews to what crimes exceſs of paſſion may tranſport. This man appears an object of compaſſion; all the children felt a mixture of pity

and abhorrence when they heard the hiſtory of his diſeaſe.

(November 23d, 1795.) This morning at breakfaſt Miſs —— obſerved, that the inſide of the cream cover, which was made of black Wedgwood's ware, looked brown and ſpeckled, as if the glazing had been worn away; ſhe aſked whether this was cauſed by the cream. One of the company immediately exclaimed, "Oh! I've heard that Wedgwood's ware won't hold "oil." Mr. —— obſerved, that it would be beſt to try the experiment, inſtead of reſting content with this hearſay evidence; he aſked H—— and S—— what would be the beſt method of trying the experiment exactly.

S—— propoſed to pour oil into a veſſel of Wedgwood's ware, and to meaſure the depth of the oil when firſt put in; to leave the oil in the veſſel for ſome time, and then to meaſure again the depth of the oil.

H—— ſaid, "I would weigh the Wedgwood's ware "veſſel, then pour oil into it, and weigh *it* (them) "again; then I would leave the oil in the veſſel for "ſome time, and afterwards I would pour out the oil, "and would weigh the veſſel to ſee if it had gained "any weight; and then weigh the oil to find out "whether it had loſt any weight ſince it was put into "the veſſel." H——'s ſcheme was approved.

A black Wedgwood's ware ſalt-cellar was weighed in accurate ſcales; it weighed 1196 grains; 110 grains of oil were poured into it; total weight of the ſalt-cellar and oil 1306 grs. Six months afterwards, the ſalt-cellar was produced to the children, who were aſtoniſhed to ſee that the oil had diſappeared. The lady,

who had firſt aſſerted that Wedgwood's ware would not hold oil, was inclined to believe that the oil had oozed through the pores of the ſalt-cellar; but the little ſpectators thought it was more probable that the oil might have been accidentally ſpilled; the ſalt-cellar weighed as before 1196 grains.

The experiment was repeated, and this time it was reſolved to lock up the ſalt-cellar, that it might not again be thrown down.

(April 14th, 1796.) Into the ſame ſalt-cellar 100 grains weight of oil was poured (total weight 1296 grains). The ſalt-cellar was put on a ſaucer and covered with a glaſs tumbler. (June 3d, 1796.) Mr. —— weighed the ſalt-cellar, and found that with the oil it weighed preciſely the ſame as before 1296 grains; without the oil 1196 grains, its original weight; therefore it was clear that the Wedgwood's ware had neither imbibed the oil, or let it paſs through its pores.

This little experiment has not been thus minutely told for philoſophers, but for children; however trivial the ſubject, it is uſeful to teach children early to try experiments. Even the weighing and calculating in this experiment amuſed them, and gave ſome ideas of the exactneſs neceſſary to prove any fact.

(December 1ſt, 1795.) S—— (8 years old), in reading Gay's fable of "the painter who pleaſed every "body and nobody," was delighted to hear that the painter put his pallet upon his thumb, becauſe S—— had ſeen a little pallet of his ſiſter A——'s which ſhe uſed to put on her thumb. S—— had been much amuſed by this, and he was very fond of this ſiſter, who had been abſent for ſome time. Aſſociation makes

ſight circumſtances agreeable to children; if we do not know theſe aſſociations we are ſurpriſed at their expreſſions of delight. It is uſeful to trace them. (Vid. Chapter on Imagination.)

S—— ſeemed puzzled when he read that the painter "dipped his pencil, talked of *Greece*." "Why did he talk of Greece!" ſaid S—— with a look of aſtoniſhment. Upon enquiry, it was found that S—— miſtook the word *Greece* for *Greaſe!*

It was explained to him, that Grecian ſtatues and Grecian figures are generally thought to be particularly graceful and well executed; that, therefore, painters attend to them.

December 1ſt, 1795. After dinner to-day, S—— was looking at a little black toothpick-caſe of his father's: his father aſked him if he knew what it was made of.

The children gueſſed different things; wood, horn, bone, paper, paſteboard, glue.

Mr.——. "Inſtead of examining the tooth-pick caſe, "S——, you hold it in your hand, and turn your eyes "away from it that you may think the better. Now, "when I want to find out any thing about a particular "object, I keep my eye fixed upon it. Obſerve the "texture of that toothpick-caſe, if you want to know "the materials of which it is made; look at the edges, "feel it."

S——. "May I ſmell it?"

Mr.——. "Oh yes. You may uſe all your ſenſes."

S——, (feeling the toothpick-caſe, ſmelling it, and looking cloſely at it.) "It is black, and ſmooth, and "ſtrong and light. What is, let me ſee, both ſtrong "and light, and it will bend—parchment?"

Mr. ——. "That is a good gueſs; but you are "not quite right yet. What is parchment? I think by "your look that you don't know."

S——. "Is it not paper paſted together?"

M——. "No; I thought you miſtook paſteboard "for parchment."

S——. "Is parchment ſkin?"

Mr. ——. "Of what?"

S——. "Animals."

Mr. ——. "What animal?"

S——. "I don't know."

Mr. ——. "Parchment is the ſkin of ſheep."

"But, S——, don't keep the toothpick-caſe in "your hand, puſh it round the table to your neigh- "bours, that every body may look again before they "gueſs. I think, for certain reaſons of my own, that "H—— will gueſs right."

H——. "Oh, I know what it is now!"

H—— had lately made a pump, the piſton of which was made of leather; the leather had been wetted, and then forced through a mould of the proper ſize. H— recollected this, as Mr. —— thought he would, and gueſſed that the caſe might have been made of leather, and by a ſimilar proceſs.

S——. "Is it made of the ſkin of ſome animal?"

Mr. ——. "Yes; but what do you mean by the "ſkin of ſome animal? What do you call it?"

S—— (laughing). "Oh, leather! leather!"

H——. "Yes, it's made the ſame way that the "piſton of my pump is made, I ſuppoſe."

M——. "Could not ſhoes be made in the ſame "manner in a mould?"

Mr. ——. "Yes; but there would be one diſad-
"vantage; the ſhoes would loſe their ſhape as ſoon as
"they were wet; and the ſole and upper leather muſt
"be nearly of the ſame thickneſs."

S——. "Is the toothpick-caſe made out of any
"particular kind of leather? I wiſh I could make
"one!"

M——. "You have a bit of green leather, will
"you give it to me? I'll punch it out like H——'s
"piſton; but I don't exactly know how the toothpick-
"caſe was made into the right ſhape?"

Mr. ——. "It was made in the ſame manner in
"which pencil-caſes and thimbles are made. If you
"take a thin piece of ſilver, or of any ductile material,
"and lay it over a concave mould, you can readily
"imagine that you can make the thin, ductile mate-
"rial take the ſhape of any mould into which you put
"it; and you may go on forcing it into moulds of
"different depths, till at laſt the plate of ſilver will
"have been ſhaped into a cylindrical form; a thim-
"ble, a pencil-caſe, a toothpick-caſe, or any ſimilar
"figure."

We have obſerved, (V. Mechanics) that children ſhould have ſome general idea of mechanics before they go into the large manufactories; this can be given to them from time to time in converſation, when little circumſtances occur which *naturally* lead to the ſubject.

(November 30th, 1795.) S—— ſaid he liked the beginning of Gay's fable of "The man and the flea" very much, but he could not tell what was meant by the crab's crawling beſide the *coral grove*, and hearing

the ocean roll *above*. "The ocean cannot roll *above*, "can it, mother?"

Mother. "Yes, when the animal is crawling be- "low he hears the water rolling above him."

M——. "Coral groves mean the branches of co- "ral which look like trees; you saw some at Briſtol in "Mr. B——'s collection."

The difficulty S—— found in underſtanding "coral "groves" confirms what has been obſerved, that chil- dren ſhould never read poetry without its being tho- roughly explained. (V. Chapter on Books.)

(January 10th, 1795.) S—— (8 years old) ſaid that he had been thinking about the wind; and he believed that it was the earth's turning round that made the wind.

M——. "Then how comes it that the wind does "not blow always the ſame way?"

S——. "Aye, that's the thing I can't make out; "beſides, perhaps the air would ſtick to the earth as it "turns round, as threads ſtick to my ſpinning top, "and go round with it."

(January 4th, 1795.) As we were talking of the king of Poland's little dwarf, S—— recollected by contraſt the Iriſh giant whom he had ſeen at Briſtol. "I liked the Iriſh giant very much, becauſe," ſaid S——, "though he was ſo large he was not ſurly; "and when my father aſked him to take out his ſhoe- "buckle to try whether it would cover my foot, he "did not ſeem in a hurry to do it. I ſuppoſe he did "not wiſh to ſhew how little I was."

Children are nice obſervers of that kind of politeneſs which ariſes from good nature; they may hence learn

what really pleaſes in manners, without being taught grimace.

Dwarfs and giants led us to Gulliver's Travels. S—— had never read them, but one of the company now gave him ſome general account of Lilliput and Brobdignag. He thought the account of the little people more entertaining than that of the large ones; the carriage of Gulliver's hat by a team of Lilliputian horſes diverted him; but, when he was told that the queen of Brobdignag's dwarf ſtuck Gulliver one day at dinner into a marrow bone, S—— looked grave, and ſeemed rather ſhocked than amuſed; he ſaid, "It "muſt have almoſt ſuffocated poor Gulliver, and muſt "have ſpoiled his clothes." S—— wondered of what cloth they could make him new clothes, becauſe the cloth in Brobdignag muſt have been too thick, and as thick as a board. He alſo wiſhed to know what ſort of glaſs was uſed to glaze the windows in Gulliver's wooden houſe; "becauſe," ſaid he, "their common "glaſs muſt have been ſo thick that it would not have "been tranſparent to Gulliver." He thought that Gulliver muſt have been extremely afraid of ſetting his ſmall wooden houſe on fire.

M——. "Why more afraid than we are? His "houſe was as large for Gulliver as our houſe is for "us."

S——. "Yes, but what makes the fire muſt have "been *ſo much* larger! One cinder, one ſpark of theirs "would have filled his little grate. And how did he "do to read their books?"

S—— was told that Gulliver ſtood at the topmoſt line of the page, and ran along as faſt as he read till he got to the bottom of the page. It was ſuggeſted,

that Gulliver might have uſed a diminiſhing glaſs. S—— immediately exclaimed, "How entertaining it "muſt have been to him to look through their tele- "ſcopes!" An inſtance of invention ariſing from *contraſt*.

If the converſation had not here been interrupted, S—— would probably have invented a greater variety of pleaſures and difficulties for Gulliver; his eagerneſs to read Gulliver's Travels was increaſed by this converſation. We ſhould let children exerciſe their invention upon all ſubjects, and not tell them the whole of every thing, and all the ingenious parts of a ſtory. Sometimes they invent theſe, and are then intereſted to ſee how the *real* author has managed them. Thus children's love for literature may be increaſed, and the activity of their minds may be exerciſed. "Le ſecret "d'ennuyer," ſays an author * who never tires us, "Le ſecret d'ennuyer eſt celui de tout dire." This may be applied to the art of education. (V. Attention, Memory, and Invention.)

(January 17th, 1796.) S——. "I don't under- "ſtand about the tides."

H—— (13 years old). "The moon when it comes "near the earth draws up the ſea by the middle; at- "tracts it, and as the middle riſes, the water runs "down from that again into the channels of rivers."

S——. "But—Hum!—the moon attracts the ſea; "but why does not the ſun attract it by the middle as "well as the moon? How can you be ſure that it is "the moon that does it?"

Mr. ——. "We are not ſure that the moon is the "cauſe of tides."

* Voltaire.

We ſhould never force any ſyſtem upon the belief of children; but wait till they can underſtand all the arguments on each ſide of the queſtion.

(January 18th, 1796.) S—— (9 years old). "Father, I have thought of a reaſon for the wind's "blowing. When there has been a hot ſunſhiny day, "and when the ground has been wet, the ſun attracts "a great deal of vapour: then *that* vapour muſt have "room, ſo it muſt puſh away ſome air to make room "for itſelf: beſides, vapour ſwells with heat, ſo it "muſt have a *great great* deal of room as it grows hotter and hotter; and the moving the air to make way "for it muſt make wind."

It is probable, that if children are not early taught by rote words which they cannot underſtand, they will *think* for themſelves! and, however ſtrange their incipient theories may appear, there is hope for the improvement of children as long as their minds are active

(February 13th, 1796.) S——. "How do phyſicians try new medicines? If they are not ſure "they will ſucceed, they may be hanged for murder, "mayn't they? It is cruel to try *them* (*them* meant "medicines) on animals; beſides, all animals are not "the ſame as men. A pig's inſide is the moſt like "that of a man. I remember my father ſhewed us "the inſide of a pig once."

Some time afterwards, S—— inquired what was meant by the circulation of the blood. "How are we "ſure that it does move? You told me that it doesn't "move after we die, then nobody can have ſeen it "really moving in the veins; that beating that I feel "in my pulſe does not feel like any thing running "backwards and forwards; it beats up and down."

The lady to whom S—— addreſſed theſe queſtions and obſervations unfortunately could not give him any information upon this ſubject, but ſhe had at leaſt the prudence or honeſty, to tell the boy that "ſhe did not "know any thing about the matter."

S—— ſhould have been ſhewn the circulation of the blood in fiſhes; which he might have ſeen by a microſcope.

Children's minds turn to ſuch inquiries; ſurely, if they were intended for phyſicians, theſe are the moments to give them a taſte for their future profeſſion, by aſſociating pleaſure with inſtruction, and connecting with the eagerneſs of curioſity the hope of making diſcoveries; a hope which all vivacious young people ſtrongly feel.

(February 16th.) S—— objected to that fable of Phædrus in which it is ſaid, that a boy threw a ſtone at Æſop, and that Æſop told the boy to throw a ſtone at another paſſenger, pointing to a rich man. The boy did as Æſop deſired, and the rich man had the boy hanged.

S—— ſaid, that he thought that Æſop ſhould have been hanged, becauſe Æſop was the cauſe of the boy's fault.

How little ſuited *political* fables are to children. This fable, which was meant to ſhew, we ſuppoſe, that the *rich* could not, like the poor, be inſulted with impunity, was quite unintelligible to a boy (nine years old) of *ſimple* underſtanding.

(July 19th, 1796.) Amongſt "*Vulgar errors*," Sir Thomas Browne might have mentioned the common notion, that if you take a hen and hold her head down to the ground, and draw a circle of chalk round her,

ſhe will be enchanted by this magical operation ſo that ſhe cannot ſtir. We determined to try the experiment, for which Dr. Johnſon would have laughed at us, as he laughed at Browne * for trying "*the hopeleſs experiment*" about the magnetic dials.

A hen's head was held down upon a ſtone flag, and a chalk line was drawn before her; ſhe did not move. The ſame hen was put into a circle of chalk that had been previouſly drawn for her reception; her head was held down according to the letter of the charm, and ſhe did not move; line or circle apparently operated alike. It was ſuggeſted (by A——) that perhaps the hen was frightened by her head's being held down to the ground, and that the chalk line and circle had nothing to do with the buſineſs. The hen was carried out of ſight of the magic line and circle, her head was held down to the ground as before; but when the perſon who had held her gently withdrew his hand ſhe did not move. She did not for ſome inſtants recover from her terror; or, perhaps, the feeling of preſſure ſeemed to her to remain upon her head after the hand was withdrawn.

Children who are accuſtomed to *doubt*, and to try experiments, will not be dupes to "Vulgar errors."

(July 20th, 1796.) S—— (between 9 and 10), when he heard a lady propoſe to make uſe of a ſmall glaſs tumbler to hold pomatum, made a face expreſſive of greaſt diſguſt; he was begged to give a reaſon for his diſlike. S—— ſaid it appeared to him dirty and diſagreeable to put pomatum into a tumbler out of which we are uſed to drink wine or water.

* V. Johnſon's Life of Browne.

We have obſerved, (V. Chapter on Taſte and Imagination) that children may early be led to reflect upon the cauſe of their taſtes.

(July 24th, 1796.) S—— obſerved, that "lachrymal ſack is like Aboulcaſem's cup, (in the Perſian tales). It is emptied and fills again of itſelf; though "it is emptied ever ſo often, it continues full."

The power of reaſoning had been more cultivated in S—— than the taſte of wit or alluſion, yet it ſeems his mind was not defective in that quickneſs of ſeizing reſemblances which *may* lead to wit. He was not praiſed for the lachrymal ſack, and Aboulcaſem's cup. (V. Chapter on Wit and judgment.)

(Auguſt 3d, 1796.) C—— (11 years old), after ſhe had heard a deſcription of a fine engine, ſaid, "I "want to read the deſcription of the fire engine over "again, for whilſt my father was deſcribing one par- "ticular part, I recollected ſomething that I had heard "before, and *that* took my attention quite away from "what he was ſaying. Very often when I am liſten- "ing, ſomething that is ſaid puts me in mind of ſome- "thing, and then I go on thinking of *that*, and I can- "not hear what is ſaid any longer."

Preceptors ſhould liſten to the obſervations that their pupils make upon their own minds; this remark of C—— ſuggeſted to us ſome ideas that have been detailed in the "Chapter on Attention."

(Auguſt 1ſt, 1796.) S——, who had been tranſlating ſome of Ovid's Metamorphoſes to his father, exclaimed, "I hate thoſe ancient gods and goddeſſes, "they are ſo wicked! I wiſh I was Perſeus and had "his ſhield, I would fly up to heaven and turn Jupi- "ter, and Apollo, and Venus into ſtone; then they

"would be too heavy to ſtay in heaven, and they "would tumble down to earth; and then they would "be ſtone ſtatues, and we ſhould have much finer ſta- "tues of Apollo and Venus than any they have now "at Rome."

(November 8th, 1796.) The following are the "*Curioſities of Literature*," which were promiſed to the reader in the chapter upon grammar and claſſical literature.

Tranſlation from Ovid. The Cave of Sleep (*firſt* edition.)

"No watchful cock Aurora's beams invite;
"No dog or gooſe, the guardians of the night."

Dog and *gooſe* were objected to, and the young author changed them into dogs and geeſe.

"No herds nor flocks, nor human voice is heard;
"But nigh the cave a *ruſtling* ſpring appeared."

When this line was read to S—— he changed the epithet *ruſtling* into *gliding*.

"And with ſoft murmurs faithleſs ſleep invites,
"And there the flying paſt again delights;
"And near the door the noxious poppy grows,
"And ſpreads his ſleepy milk at daylight's cloſe."

S—— was now requeſted to tranſlate the beginning of the ſentence, and he produced theſe lines:

"Far from the ſun there lies a cave forlorn,
"Which Sol's bright beams *can't* enter eve nor morn."

Can't was objected to. Mr. —— aſked S—— what

was the literal Engliſh. S—— firſt ſaid *not*, and then *nor*; and he corrected his line, and made it

"Which Sol's bright beams *nor* viſits eve nor morn."

Afterwards:

"Far in a vale there lies a cave forlorn,
"Which Phœbus never enters eve nor morn."

After an interval of a few days the lines were all read to the boy, to try whether he could farther correct them; he deſired to have the two following lines left out:

"No herds, nor flocks, no human voice is heard,
"But nigh the cave a gliding ſpring appeared."

And in the place of them he wrote,

"No flocks nor herds diſturb the ſilent plains,
"Within the ſacred walls mute quiet reigns."

Inſtead of the two following,

"And with ſoft murmurs faithleſs ſleep invites,
"And there the flying paſt again delights,"

S—— deſired his *ſecretary* to write,

"But murmuring Lethe ſoothing ſleep invites,
"In dreams again the flying paſt delights."

Inſtead of

"And near the doors the noxious poppy grows,
"And ſpreads his ſleepy milk at daylight's cloſe,"

the following lines were written. S—— did not ſay *doors*, becauſe he thought the cave had no doors; yet his Latin, he ſaid, ſpoke of ſqueaking hinges.

"From milky flowers that near the cavern grow,
"Night ſcatters the collected ſleep below."

We ſhall not make any farther apology for inſerting all theſe corrections, becauſe we have already ſufficiently explained our motives. (V. Chapter on Grammar and Claſſical Literature.)

(February 1797.) A theatre was put up for the children, and they acted a little play. When the ſcenes were pulled down afterwards, S—— was extremely ſorry to ſee the whole theatre vaniſh; he had ſucceeded as an actor, and he wiſhed to have another play acted. His father did not wiſh that he ſhould become ambitious of excelling in this way at ten years old, becauſe, it might have turned his attention away from things of more conſequence; and, if he had been much applauded for his talent, he would, perhaps, have been over ſtimulated. (V. Chapter on Vanity and Ambition.)

The way to turn this boy's mind away from its preſent purſuit, was to give him another object, not to blame or check him for the natural expreſſion of his wiſhes. It is difficult to find objects for children who have not cultivated a taſte for literature; but infinite variety can be found for thoſe who have acquired this happy taſte.

Soon after S—— had expreſſed his ardent wiſh to have another play performed, the trial of ſome poor man in the neighbourhood happened to be mentioned, and it was ſaid, that the criminal had the choice of either going to Botany-bay, or being hanged.

S—— aſked how that could be. "I didn't think," "ſaid he, that a man could have two puniſhments. "Can the judge change the puniſhment? I thought it "was fixed by the law."

Mr. —— told S—— that theſe were ſenſible queſtions, and as he ſaw that the boy's attention was fixed, he ſeized the opportunity to give him ſome general idea upon the ſubject. He began with telling S—— the manner in which a ſuſpected perſon is brought before a juſtice of the peace. A warrant and committal were deſcribed; then the manner of trying criminals; what is called the court, the jury, &c. the crier of the court, and the forms of a trial; the reaſon why the priſoner when he is aſked how he will be tried? anſwers, "By God and my country;" this led to an account of the old abſurd fire and water ordeals, and thence the advantages of a trial by jury became more apparent by compariſon. Mr. —— told S—— why it is called *impanelling* a jury, and why the jury are called a *pannel*; the manner in which the jury gave their verdict; the duty of the judge, to ſum up the evidence, to explain the law to the jury. "The judge "is by the humane laws of England always ſuppoſed "to be the protector of the accuſed: and now, S——, "we are come round to your queſtion; the judge "cannot make the puniſhment more ſevere; but when "the puniſhment is fine or impriſonment, the quantity "or duration of the puniſhment is left to his judgment. "The king may remit the puniſhment entirely; he "may pardon the criminal; he may, if a man be ſen-"tenced to be hanged, give him his choice whether

"he will be hanged or *transported*." (The word was explained.)

"But," said S——, "since the judge cannot *change* "the punishment, why may the king? I think it is "very unjust that the king should have such a power, "because, if he changes the punishment for one "thing, why mayn't he for another and another, and "so on?"

Mr. ——. "I am inclined to believe, my dear "S——, that it is for the good of a state that a king "should have such a power; but I am not sure. If "any individual should have this power, I think it "most safely trusted to a king; because, as he has no "connection with the individuals who are tried, as he "does not live amongst them, he is not so liable as "judges and jurymen might be to be prejudiced, to be "influenced by personal revenge, friendship, or pity. "When he pardons, he is supposed to pardon without "any personal motives. But of all this, S——, you "will judge for yourself when you study the law. I "intend to take you with me to —— next assizes "to hear a trial."

S—— looked fully as eager to hear a trial, as he had done, half an hour before, to act a play. We should mention, that in the little play in which he had acted he had played the part of a justice of the peace, and a sort of trial formed the business of the play; the ideas of trials and law, therefore, joined readily with his former train of thought. Much of the success of education depends upon the preceptor's seizing these slight connexions. It is scarcely possible to explain this fully in writing.

(February 25th, 1797.) S—— was reading in

"Evenings at Home" the ſtory of "A friend in need "is a friend indeed."

"Mr. G. Corniſh having raiſed a moderate fortune, "and being now beyond the meridian of life, he felt a "*ſtrong deſire* of returning to his native country."

S——. "How much better that is than to ſay he "felt an *irreſiſtible deſire*, or an *inſupportable deſire*, as peo- "ple ſometimes ſay in books."

Our pupils were always permitted to ſtop when they were reading aloud, to make whatever remarks they pleaſed upon whatever books they read. They did not by this method get through ſo many books as other children of their age uſually do; but their taſte for reading ſeemed to increaſe rapidly. (V. Books.)

(March 8th, 1797.) H—— (14) told us that he remembered ſeeing, when he was five years old, ſome puppets packed up by a ſhowman in a triangular box, "and for ſome time afterwards," ſaid H——, "when "I ſaw my father's triangular hat-box, I expected "puppets to come out of it. A few days ago, I met "a man with a triangular box upon his head, and I "thought that there were puppets in the box."

We have taken notice of this propenſity in children to believe that particular are general cauſes, and we have endeavoured to ſhew how it affects the temper, and the habits of reaſoning. (V. Temper, and Wit and Judgment.)

(March 27th, 1797.) Mr. —— ſhewed little W—— (3 years old) a watch, and aſked him if he thought it was alive.

W——. "Yes."

Mr. ——. "Do you think that fire is alive?"

W——. "Yes."

Mr.—— (the child was ſtanding at the tea table). "Do you think the urn is alive?"

W——. "No."

Mr. ——. "Do you think that book is alive?"

W——. "No."

Mr. ——. "The horſes?"

W——. "Yes."

Mr. ——. "Do you think that the chaiſe is alive?"

W——. "Yes." Then, after looking in Mr. ——'s face, he changed his opinion, and ſaid *No*.

W—— did not ſeem to know what was meant by the word *alive*.

Mr. —— called Ho. (3 years old), and aſked her whether ſhe thought that the watch was alive. She at firſt ſaid Yes; but, as ſoon as ſhe had time to recollect herſelf, ſhe ſaid that the watch was not alive.

This queſtion was aſked to try whether Reid was right in his conjecture as to the anſwers a child would give to ſuch a queſtion. (V. Reid's Eſſays on the Intellectual Powers of Man.)

We frequently ſay, that flowers, &c. are dead: we ſhould explain to children that there are two kinds of life; or rather, that the word *life* is uſed to expreſs two ideas; vegetable life, and animal life.

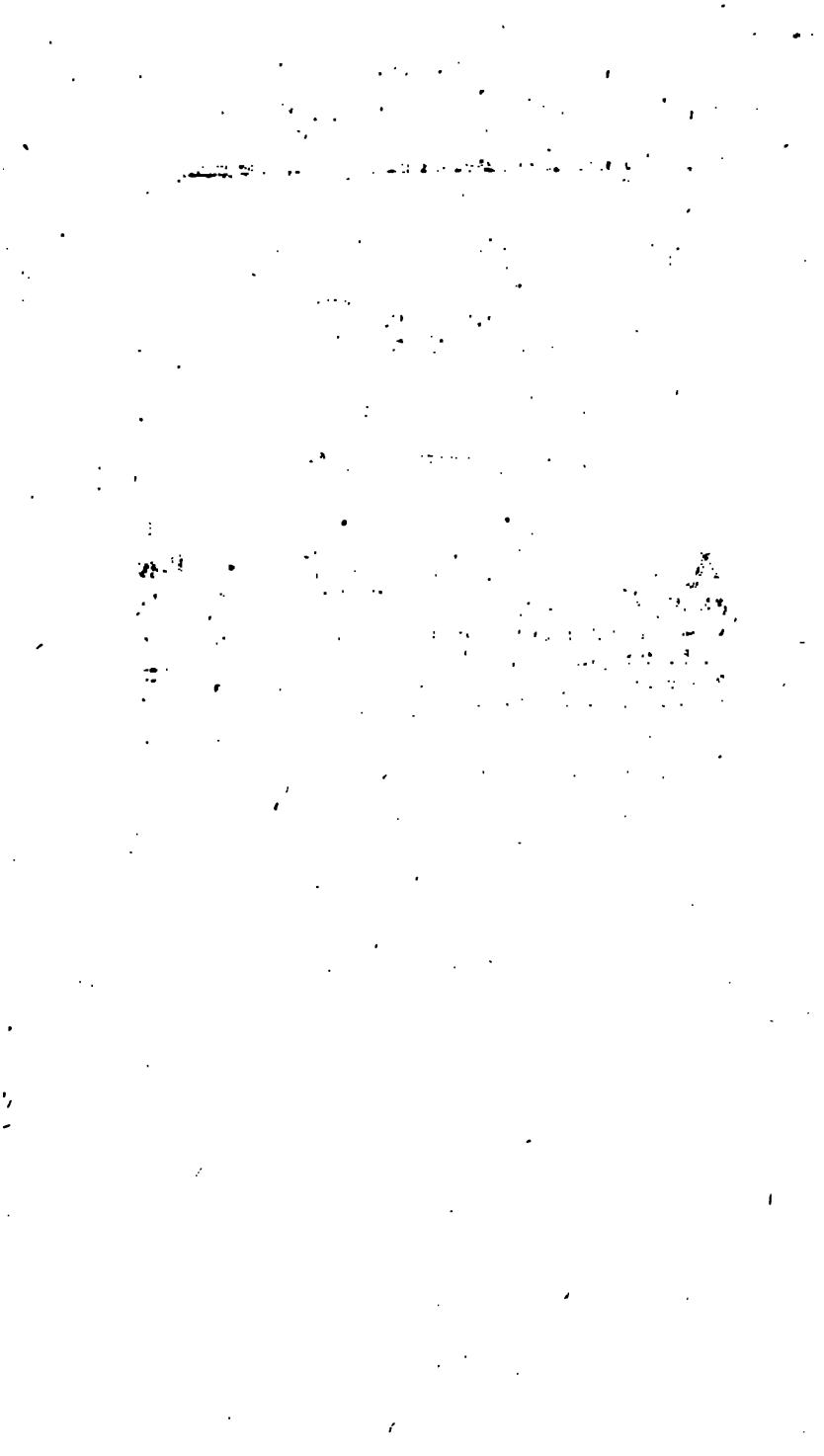
(July 1797.) Little W—— (3 years old) was ſhewn Miſs B——'s beautiful copy of the Aurora ſurgens of Guido. The car of Apollo is encircled by the dancing hours, ſo that its ſhape is not ſeen, part of one wheel only is viſible between the robes of the dancing figures. We aſked little W—— why that man (pointing to the figure of Apollo in his inviſible car)

looked ſo much higher up in the air than the other people?

W——. "Becauſe he is in a carriage; he is ſit-"ting in a carriage."

We pointed to the imperfect wheel, and aſked if he knew what that was; he immediately anſwered, "Yes, "the wheel of the carriage." We wanted to ſee whether the imagination of a child of three years old would ſupply the inviſible parts of the *car*, and whether the wheel and horſes, and man holding the reins, would ſuggeſt the idea of a phaeton. (V. Chapter on Taſte and Imagination.)

We ſhall not treſpaſs upon the reader's patience with any more anecdotes from the nurſery. We hope, that candid and intelligent parents will pardon, if they have diſcovered any deſire in us to *exhibit* our pupils. We may miſtake our own motives, and we do not pretend to be perfectly impartial judges upon this occaſion; but we have hoped, that only ſuch converſations or anecdotes have been produced as may be of ſome uſe in Practical Education. From converſation, if properly managed, children may learn with eaſe, expedition, and delight, a variety of knowledge; and a ſkilful preceptor can apply in converſation all the principles that we have laborioufly endeavoured to make intelligible.



INDEX.

	Vol.	Page
A, B, C, of ſcience to be learned early	iii,	125
Abeillard — — —	ii,	20
——— his ſurpriſing memory —	iii,	59
Abſtraction, nature of — —	i,	161
Academies, military — —	ii,	385
Accelerated motion, occaſioned by gravity; the laws of it illuſtrated by a machine	ii,	309
Accompliſhments — —	i,	314
——— chapter on — —	iii,	1
——— their value — —	iii,	2
——— power of acquiring them uſeful — — —	iii,	15
——— their abuſe only condemned	iii,	20
Achilles, his ſpeech to Agamemnon —	iii,	184
Acquaintance, chapter on — i,	207,	237
Actreſs, French, her exclamation —	ii,	52
Addiſon — — i,	176, ii,	179
Adele and Theodore — i,	122, 297, ii,	238
Admiration and wonder — —	iii,	151
Adventurer — — —	ii,	118
Advocates, children not to be made advocates — — —	iii,	225
Æſchylus, Potter's — —	ii,	226
Affectation, how it may be learned —	ii,	49
Aikin, Dr. — — —	ii,	228
Alary, Abbè de — —	iii,	61
Alcibiades — — —	i,	148

	Vol.	Page
Alembroth, ſalt of	i,	113
Alexander the Great	ii,	76
Alexander, parallel between him and the Duke of Baubleſhire	iii,	186
Alexander's Feaſt	iii,	157
Alexey Petrovich	i,	364
Aliſon, on taſte	iii,	137
Alkali and acid	ii,	350
Allegro and Il Penſeroſo	ii,	165
Almonds and raiſins	i,	346
Ambition	ii,	76
Analogies of poetry and reaſoning differ	iii,	221
Analogy	iii,	96
—— defective in our numeration from the terms eleven and twelve	ii,	259
Anecdotes of children		
—— A— and Ho— learning to read	i,	73
—— A— and Ho— on *thinking*	ii,	147
—— B— deſcription of evening	iii,	149
—— C—		ib.
—— S—	iii,	150
—— C—	i,	317
—— C Grammar.——Pope's lines.—Conſtruction	ii,	207
—— C— problems to exerciſe invention	iii,	310
—— C— ſteam engine	iii,	114
—— C— deſcription of evening	iii,	149
—— C— remarks on a bet of Mr. Elwes's	iii,	246
—— Ho— learning to read	i,	73
—— H— links miſſed in converſation	i,	149
—— Tydides, the ſon of Tydeus		ib.
—— H— Gorgon	i,	150
—— Ho— her fear of a cat	i,	240
—— H— his fear of pictures	i,	247
—— H— hot bed, mice	ii,	30
—— H— on *thinking* and *feeling*	ii,	147
—— H— on *thinking* and *moving*	ii,	147, 148
—— H— Shakſpeare	ii,	153
—— H— learning grammar	ii,	201
—— H— remarks on St. Pierre	iii,	221
—— L— Pictures in Gil Blas	i,	17
—— L— Gorgon	i,	149
—— L— frog, a beautiful animal	ii,	29
—— L— Black's lectures	iii,	112

	Vol.	Page
Anecdotes of children.		
——— S— rainbow, coloured ſhadows	i,	84, 87
——— S— on arithmetick —	i,	89, 91
——— S. ——— —	i,	214
——— S. ——— —	i,	319
——— S. ——— —	i,	387
——— S— ho' bed, mice —	ii,	30
——— S— Shakſpeare —— —	ii,	152
——— S— hymn to adverſity, "Tears "of Old May-day" ——	ii,	156, 164
——— S— grammar. Sir, a pronoun	ii,	203
——— S— grammar —— —	ii,	209
——— S— tranſlation from Ovid —	ii,	214
——— S— machine for ruling a ſheet of paper at once ——— —	iii,	106
——— S— bucket —— —	iii,	107
——— S— ſcales for diamonds —	iii,	108
——— S— deſcription of evening —	iii,	150
——— S— on wit, epigrams — iii,	211,	220
——— S— on St. Pierre ——	iii,	221
——— S— ſophiſms —— iii,	223,	233
——— S— whether ſpiders are fond of muſic ——— ——	iii,	241
——— W— graſs mowing ——	iii,	205
——— W— ſowing ſeeds, learning letters ——— ——	iii,	207
——— *v.* APPENDIX.		
Anger, we excuſe faults committed in anger	i,	369
——— whether it ſhould accompany puniſhment ——	i,	379
Animals, children's conduct towards —	ii,	27
Annual Regiſters ——	ii,	118
Anticipations, juvenile ——— —	ii,	378
Antiquitates homericæ —— —	iii,	62
Antonio de Dominis — —	i,	86
Applauſe, vulgar, hurtful — —	iii,	284
Arabian tales, olive merchant ——	iii,	243
Arbiter deliciarum —— —	i,	313
Arguments for children — —	iii,	224
Arioſto —— —— —	iii,	63
Arithmetick, dialogue on — —	i,	89
chapter on — —	ii,	244, 287
——— common terms of it ſhould be explained and made familiar —	ii,	245
——— uſe of cubes, with numbers inſcribed on them —— —	ii,	250
——— uſe of ſymbols —	ii,	249

	Vol.	Page
Arithmetick, numeration, method of teaching	ii,	254
—— easily taught to children; ſhould be taught by realities, and by ſigns at the ſame time	ii,	257
Arts, imitative	iii,	34
—— echnical	iii,	33
Aſſociation of ideas, inſtance of its effect on the temper	i,	249
—— how it enſures obedience	i,	266
Aſſociations of ideas form taſte	iii,	185
—— cauſe terror	iii,	140
—— falſe ones, how to be broken	iii,	268
—— power of forming them varies in different minds	iii, 87,	183
Attend to one thing at a time	i, 117—	122
Attention may be commanded by choice of language	i,	111
Attention	i, 139,	181
—— chapter on	i, 113,	189
—— raiſed by aſſociation	i,	121
—— tranſition of	i,	138
—— ſluggiſh, how to be managed	i,	141
—— of vivacious children	i,	151
—— abſtraction of	i, 163,	173

B

Bacon	i,	32
—— on the diſeaſes of the mind	i,	154
—— on the manner in which we learn and teach	i,	181
—— doctrine of riſing in the world	i,	342
Bailey's Phædrus	ii,	224
Balloons	iii,	120
Barbauld, Mrs. remarks on her Leſſons for Children	ii,	81
—— a good line of hers	ii,	64
—— compared to a waiting maid	i,	190
Barnes, Dr. his eſſay on imagination	iii,	128
Barnet, Mr. in Moore's Edward	ii,	15
Barnwell, George, a moral drama	iii,	146
Baſon of bread and milk, children fighting for	ii,	14
Baſtille, ſtory of officer confined in	iii,	241
Baubles, female taſte for	iii,	274

	Vol.	Page
Bayle	i,	175
Beccaria explains the nature of puniſhment	i, 351,	367
Beddoes, Dr. on the nature of mathematical evidence	ii,	284
Belief upon truſt	i,	331
——— reaſons for to be required	iii,	238
Berington's life of Abeillard	ii,	20
Berkeley, on mathematical evidence	ii,	285
Berquin's Children's Friend	ii,	88
Berthollet's chemiſtry	i,	115
Bird-witted	i,	32
Bird-witted children	i,	154
Black, Dr.	iii,	112
Blackſtone	i, 351,	367
Blair's lectures	ii,	180
Block, fix, ſignifications of ———	i,	114
Bludgeon men	i,	384
Blue-beard	iii,	142
Bogdo chan	i,	377
Boileau, his love of free will	i,	278
Bombaſt ———	iii,	145
Books, chapter on ———	ii,	81
——— paſſages from, to be ſelected	ii,	117
——— children to ſkip what they do not underſtand	ii,	122
——— children beſt judges of what tires them	ii,	122
Boothby, Sir Brooke, his excellent epitaph on Algernon Sidney	iii,	102
Borrowing and paying, in ſubtraction, explained	ii,	263
Botanic garden	ii, 50,	232
Bourgeois, Pere ———	i,	113
Boverick, his landau drawn by a flea	iii,	123
Boy, deaf and dumb	i,	94
Brebeuf, hi 50 epigrams on a painted lady	iii,	124
Bucket for aſhes	iii,	107
Buffon	i, 50,	86
——— how often he tranſcribed the "Epoches de la Nature"	i,	153
Buffon tormented by field mice	ii,	31
——— diſplaying letters of a prince and empreſs	ii,	64
Burke	i,	193
Butler's Arithmetical Queſtions	ii,	272
Butterfly	i,	404
Buzzi, Signor di—cataract	iii,	32

C

Calculation teaches prudence and economy iii, 277, 285
Calphurnia, female pleader — iii, 272
Camilla, Mrs. D'Arblay's — ii, 22, iii, 279
Capstan — — ii, 317
Carlisle, lady, spelling — — i, 79
Cartwright, major, his journal — — i, 118
Cap, shell caps that cost 200 guineas — — iii, 274
Cat, eaten alive — — ii, 28
Cats and dogs, "it rains cats and dogs" — — i, 335
Cataracts, young man couched for one — — iii, 32
Causation and coincidence — — i, 356
——— children cannot distinguish between them — iii, 203
Chappe, Abbe de, transit of Venus — — i, 399
Chaptal — — — ii, 118
Chapter of kings — — — ii, 235
Characters, difference of — — — i, 137
——— of children not to be spoken of as fixed — — — i, 370
Charity — — — — ii, 33
Charles 12th — — — i, 165
——— 6th of France — — — iii, 270
——— 2d, epitaph on — — — iii, 255
——— de Moor — — — iii, 145
Chart of biography, new plan of — — ii, 236
——— history, combining chronology, geography, and biography — — — ii, 241
Chatham, lord — — — ii, 73, 75
Chemistry, chapter on — — — ii, 342, 355
——— language of — — — i, 115
——— familiar mode of teaching it to children — — — ii, 342
——— solution — — — ii, 344
——— saturation — — — ii, 346
——— experiments in chemistry for children — — — ii, 346, 354
——— precipitation — — — ii, 348
——— volatility — — — ii, 348
——— acid and alkali — — — ii, 350
——— salt, chemical — — — ii, 353
——— experiments — — — i, 43
Chess — — — — i, 32
——— man kidnapped by a little boy — — i, 274
Chesterfieldian system — — — i, 392
Chesterfield's letters — — — ii, 426

	Vol.	Page
Child, an only child generally ſpoiled	i,	246
——— laughing, turned to child crying	iii,	143
Children, Minorcan	i,	130
——— how made good ſpinners	i,	122
——— when you want them not to hear what is ſaid, ſend them away	i,	230
——— reaſon well	iii,	117
Chimney, what is meant by a chimney on fire	i,	224
Chineſe language	i,	113
Choice, to be allowed to children	iii,	256
Chou, ſignifications of	i,	113
Chronology and hiſtory	ii, 124,	142
——— learned by rote ſoon forgotten	ii, 233,	243
Circe, fable of	ii,	228
Claſſes, at public ſchools	ii,	197
Claſſical literature	i,	342
——— alluſions	iii,	102
Clerks, their memories	iii,	68
Coach and ſix	iii,	268
——— not ſweet repenting in one	iii,	27
Coincidencies, children fond of remarking them	iii,	96
——— ——— ——— ſhould be taught to reaſon about them	iii,	97
Colin and Lucy	iii,	129
Collins's ode to fear	iii,	140
Coloured ſhadows	i,	86
Colquhoun, police of metropolis	iii,	289
Combinations of children	i,	382
Commands ſhould be as few as poſſible	i,	270
Commenius's Viſible World	ii,	223
Company, good, what	iii,	280
Compariſons ——— iii, 258,		264
——— how children may be taught to form them	iii,	194
Complaiſance not always good temper	i,	291
Comus	ii,	165
Condillac ——— i, 94, 108, 116,	iii,	176
——— art de Penſer	i,	161
——— remarks on ii, 141,	150,	160
——— on grammar	ii,	169
——— art of reaſoning	iii,	236
——— on identical propoſitions iii,	236,	237
Confectionary a branch of chemiſtry	i,	41
Confidence, how to obtain	i,	330

	Vol.	Page
Conſcience	i,	372
Contradiction and love of free-will, whence they ariſe	i,	278
Converſation d'Emile	ii,	116
——— uſeful to memory	iii,	99
——— advantage of	iii,	112, 117
——— nonſenſical, hurtful	iii,	199
Converſion of vanity into pride	ii,	64
Cordery	ii,	223
Cornelius Nepos	i, 339, ii,	224
Count Caglioſtro	i,	117
Count Fathom	i,	336
Countenance, expreſſion of it to be attended to	i,	104
Counteſs La Motte,	i,	117
Cours d'Etude, Condillac	ii,	141
Courſe of Claſſical ſtudy	ii,	222
Courtiers compared to children	i, 136,	379
Credulity in children no mark of folly	iii,	225
——— preſervation againſt	iii,	238
Criticiſm	ii,	172
——— children ſometimes good critics	iii,	247
Cruelty, preſervatives againſt	ii, 27,	33
Cubes, with numbers inſcribed on them, uſeful in teaching arithmetic	ii,	252
——— they lead to the idea of ſquaring and cubing numbers	ii,	252
——— mode of uſing them	ii,	ib.
Curioſities of literature	i, 159, iii,	63, 240
Cuzzona, ſinger, her extravagance	iii,	274
Cyropædia	i,	315
Cyrus	ii,	79
——'s judgment; two coats	iii,	243

D

D'Agueſſeau, chancellor of France	i,	171
Dancing	iii,	21
D'Arblay, Mrs. her Camilla	ii, 22, iii,	279
Darwin, Dr. diſagreeable ſenſations how relieved	i,	125
——— boy riding on a gold-headed cane	i.	133
——— on changing the objects of ſtudy	i,	172
——— critical remarks in Botanic Garden	ii,	50

	Vol.	Page
Darwin, Dr. his works, paſſages from to be ſelected for young people —	ii,	118
——— ingenious remark of his —	iii,	129
——— on ambition — —	iii,	164
——— account of a boy's antipathy to ſturgeon —— —	iii,	178
——— antipathies againſt ſpiders and frogs — ——— —	iii,	182
——— intuitive analogy —	iii,	265
Deafneſs, Cicero's conſolation for —	iii,	223
Deceit, temptations ſhould be avoided —	i,	313
——— habit of ——— —	i,	344
Deductions follow compariſon — —	iii,	197
Definitions ——— —	i,	109
Deinology ——— —	iii,	162
Demir-baſh, head of iron — —	i,	287
Demonſtration oppoſed to analogy —	iii,	97
——— Condillac — —	iii,	236
Deſcartes ——— — —	i,	86
——— his flower garden — —	i,	171
Deſcription, how children may be taught to deſcribe —— —— —	iii,	148
Deſcription, higheſt ſtyle, on what it depends —— —— —	iii,	151
Deſcriptions; three deſcriptions of evening by children —— —— —	iii,	149
Diſiderata of ſciences, young people ſhould know —— —— —	iii,	125
Diamonds, ſcales for weighing —	iii,	108
Dictionary —— —— —	i,	74
——— Johnſon's —— —	i,	114
Dilemma —— —— —	i,	215
Dionyſius a bad ſchoolmaſter —	i,	135
——— his love of ſympathy —	ii,	8
——— his method of adorning the floors of his palace —— —— —	ii,	276
Diſappointments, their effects on the temper	i,	251
Diſcoveries, what powers neceſſary to make them —— —— —	iii,	80
Diſtillers, battles between them and revenue officers —— —— —	i,	373
Diviſion, the Italian method of arrangement preferred —— —— —	ii,	267
Doddington's diary —— — —	ii,	77
Donne's, Mr. palpable geometry —	ii,	275
Drafts — — —	i,	32

	Vol.	Page
Drawing — — —	iii,	6
Dreſs, inconveniencies of children's dreſs		
cauſe of ill humour and awkwardneſs —	i,	250
Drum, boy frightened at the ſound of —	i,	242
Duke of Baubleſhire, a pauper —	iii,	186
Duke of Burgundy, his love of truth —	i,	314
Dumb orator — — —	i,	127
Dance, Pope's receipt to make one —	ii,	284
Dutch burn ſome of their ſpices to enhance		
the price of the remainder —	iii,	250

E

Eating, children ſhould be taught to eat neatly — — —	i,	196
——— not to be made a reward —	i,	198
——— let children eat what they pleaſe —	i,	310
Education bad, cauſe of crimes —	i,	353
Education practical, never ends! —	i,	173
Education public and private, chapter on —	i, 366,	386
Edwards, Bryan, Hiſtory of Weſt Indies i, 328,	iii,	287
Economy, — — —	iii, 274,	290
——— not confined to money —	iii,	275
——— order neceſſary to — —	iii,	276
——— how to teach — —	iii, 277,	283
Elegant Extracts — — —	ii,	118
Elgin, earl of, his ſons — —	i,	405
Eloquence and reaſoning joined —	iii,	144
Elwes, Mr. — — —	iii, 185,	245
——— his huntſman — —	i,	170
Emperor of Barbary raiſing a perpendicular	iii,	266
Emulation — — —	ii,	19
Enemy, indefinite uſe of this word —	iii,	249
Enfield's Speaker — — —	ii,	118
Engliſh compoſition — —	ii,	221
Ennui produces ill humour — —	i,	291
Enthuſiaſm neceſſary to poets, painters, and		
heroes — — —	iii,	162
——— when dangerous —	iii,	166
——— how excited for wealth or		
power — — —	iii,	167
Envy — — —	ii,	16
Epea pteroenta — — —	ii, 209,	210
Epigrams, — — —	iii,	218
Equivocation, habits of how to be broken —	i,	344
Erudition — — —	iii,	60
Eſkimaux, in London — —	i,	118

	Vol.	Page
Eſtimates, habit of making them forms the judgment	iii,	283
Evening, three deſcriptions of, by children	iii,	149
Evenings at Home i, 256, ii, 115, 121,	iii,	243
Evidence, difficult to judge of its truth	iii,	242
Euphroſyne, miſtreſs of Alexey Petrovich	i,	364
Europa, Darwin's deſcription of	ii,	232
Exerciſe, mental, neceſſary	iii,	133
Exerciſes, learning new ones	i,	122
Exhibitions, better to let children ſee, than hear of them	iii,	170
Experience, its effects	i,	356
——— artificial courſe of	i,	297
——— how it improves judgment	iii,	234
Experiments, fit for children		
——— in chemiſtry and dyeing	i,	42
——— Dr. Percival's Mancheſter ſociety	i,	45
——— Dr. Wall's Mancheſter ſociety	i,	46
——— Dr. Prieſtley's	i,	49
——— Dr. Hooke's	i,	50
——— Lord Brereton's	i,	50
——— with the Panorganon	ii,	320—341
——— when uſeleſs to repeat them	iii,	239
——— neceſſary to teach prudence	iii,	257
Extravagance	iii,	280

F

Falſehood, cure of propenſity to	i,	343
Family ſociety, children ſhould be admitted into	iii,	105
Farrier, in Scotland, how puniſhed for pricking a horſe's foot	i,	355
Fathers ſhould treat ſons with confidence	iii,	278
Fear, in young children how to be prevented	i,	242
—— a bad governing principle	i,	328
Fell, Dr.	ii,	377
Female education	ii,	50
——— accompliſhments; maſters and governeſſes	iii,	1
Fenelon, his candour uſeful to his pupil	i,	288
Feſtina lente	ii,	185
Fidgetting	i,	126
Fine ladies, their memories	iii,	68
Fire, a child learns not to put his finger into	i,	356

	Vol.	Page
Flats, figs, or figthings, what —	i,	384
Flattery, contempt for, how inſpired —	i,	314
Flea yoked to a landau — —	iii,	123
Force with which a man can draw horizontally — — —	ii,	320
Forming in the mind the idea of figures generated by points or lines in motion, a uſeful exerciſe — —	ii,	285
Franklin, Dr. — — —	i, 80, ii,	118
——— on diſputing — —	i,	245
——— note of interrogation —	ii,	167
——— his conduct of his own underſtanding — — —	iii,	81—86
——— his life a good example of induſtry	i,	160
French academy of ſciences — —	ii,	118
Fulcrum — — —	ii,	294
Fuller's worthies of England, trial of memory	iii,	66
Future, how to teach children to think of it	iii,	260

G

Galileo uſed to read Arioſto — —	i,	178
Gambling — — —	i,	54
——— preventatives againſt —	iii,	285
Game, muſt be ſtarted by children —	iii,	228
Garcon, Iriſh, taught to ſteal turf —	i,	325
Garden — — —	i,	33
——— children ſhould have ſmall ones —	i,	201
Gaucherie, la, tutor to Henry 4th —	iii,	100
Gaultier, Abbé de — —	ii,	242
Gazetteer, Brookes's — —	ii,	140
Gems and medals — — —	iii,	135
General terms ſhould be avoided —	i,	109
——— their uſe — —	i,	109
Generoſity, how to excite —	i, 406, to ii,	35
Genius, inventive, defects accompanying —	iii,	118
Geniuſes, volatile — — —	i,	146
——— ſelf taught, their defects —	iii,	119
Genlis, Madame de — —	i, 122,	346
Geography and chronology, chapter on —	ii, 233—	243
——— learned merely by rote, ſoon forgotten — — —	ii,	233
Geometry, royal road to — —	i,	158
——— chapter on — —	ii,	274
——— may be taught palpably —	ii,	275
Gerard's eſſay on genius — —	iii,	128

	Vol. Page
Gibbon, letter of his	ii, 64
—— journal of his ſtudies	ii, 179, 182
—— obſervations on his mind	iii, 161
Gil Blas	i, 336, 337
Girl knocked down, for what	ii, 28
—— and ſtrawberries	ii, 48
—— of ſix years old at a play	iii, 171
Globe, new one, portable, made of ſilk	ii, 239
—— of lath and plaiſter	ii, 240
Gloſſaries	ii, 224
Glouceſter gaol	i, 385
Gluttons, all children not	i, 197
Godwin's Enquirer	i, 350
Governeſſe	iii, 43—55
Grammar and claſſical literature, chapter on	ii, 184
Grammar how to be taught	ii, 198—213
Grave faces unneceſſary	iii, 227
Gravity, force of	ii, 310
Gray's hymn to adverſity	ii, 156
Gregory, Dr. his comparative view	ii, 20
Grey's Memoria Technica	ii, 235, iii, 71
Griſelda	i, 264
Guardian	ii, 118
Gulliver	ii, 30, 110
Guthrie's Geographical Grammar	ii, 137

H

Habit of deceit	i, 343
Habits, cure of bad ones	i, 391
—— bad, acquired at home cannot be immediately cured at ſchool	ii, 365
Handkerchiefs, boys handkerchiefs ſhould not be kept in tight pockets	i, 251
Hartley's ſyſtem of vibrations	iii, 130
Hat, old one	iii, 276
Health, prudential maxims	i, 310
Heberden, Dr.	iii, 66
Helvetius	iii, 87, 122
Henry the 4th of France conſidered as a ſchoolmaſter	i, 135
—— 5th, how taught hiſtory and biography	iii, 100
—— his character	ii, 133
Hieroglyphic, tranſitory	i, 98
Higgins's leſſons on chemiſtry uſeful to Gibbon	iii, 161

	Vol.	Page
Hindoo art of dyeing	ii,	373
History, deteſtable characters in	i,	338
History	ii,	124
Hits, happy, children not to be extolled for	i,	153
Hogarth	ii,	62
Hogarth's analyſis of beauty	iii,	136
——— poor box	iii,	156
Holidays	ii,	373
Homeri Gnomologia	iii,	62
Hooke, Dr. his poſthumous works	iii,	120
——— conduct of his underſtanding	iii,	118
Hooke's Micrographia	iii,	123
Hooper's Rational Recreations	i,	43
Hope and fear	i,	394—405
Horne Tooke	ii, 203, 204; iii,	248
——— on interjections	iii,	153
Horſe or no horſe	i,	215
Hounds, king's ſtag hounds	iii,	228
Houſes, arrangements in them to prevent children from keeping company with ſervants	i,	202
Hudibras	iii,	289
Hume	ii,	179
——— diſſertation on the paſſions	i,	395
——— eſſay on the ſtandard of taſte	iii,	136
Humility, affectation of	ii,	74
Humour, ill humour how to be counteracted	i,	245
Hunger and thirſt, temptations to deceit	i,	310
Hunter's courſe of anatomy uſeful to Gibbon	iii,	161

I

Ideas paſs rapidly	i,	120
Identity and conſciouſneſs	i,	367
Identity, Condillac's opinion concerning	iii,	236
Idle man not a good maſter, why	i,	293
Idleneſs	i,	247
Ignorance, our own ſhould be acknowledged with candour to our pupil	i,	181
Imagination and ſympathy	iii,	156
——— hated by philoſophers	iii,	128
——— power of forming images	iii,	129
——— perſons of	iii,	163
——— regulation of	iii,	171
Impatience, when cruel	i,	357
Imprudence	iii,	267

	Vol.	Page
Income of young people	iii,	289
Indian ſcreen	iii,	135
Indolence, how cured	i,	141
Indulgence, its effects upon the temper	i,	263
——— what degrees of it ſhould be allowed	i,	264
Induſtry, houſe of at Munich	i,	122
——— to be raiſed in quick children	i,	153
Innocent, an, meaning of in Ireland	i,	326
Integrity ſhould be warmly approved	i,	315
——— increaſing demand for	i,	343
Interjections	ii, 203, 204; iii,	153
Interrogation, note of	ii,	167
Invention aſſiſts memory	iii,	101
——— how to be exerciſed	iii,	105
——— how aſſiſted by principles	iii,	115
——— clea ſtatements aſſiſt	iii,	115
——— ſcientific	iii,	117
——— of experiments	iii,	117
——— frivolous	iii,	123
Iriſh anſwers	i,	323
Iriſh cow, education of	i,	326

J

Jealouſy and envy	ii,	16
Jeſſica	iii,	169
Jews	i,	386
Jockies, gentlemen jockies	i,	340
Johnſon, Dr.	ii,	168
——— opinions of compared to a faggot	i,	110
——— his memory, how cultivated	iii,	99
——— his hatred of the Punic wars	iii,	104
——— lines of his	iii,	290
Journa Peltier's	ii,	64
Judgment, how to be cultivated	iii,	210
——— trials of	iii,	243
——— how tutors to give their pupils confidence in	iii,	269
——— ſhould be firſt exerciſed on viſible and tangible ſubſtances	iii,	196
——— compared with wit	i,	177
Juggler and Roman emperor	iii,	167

K

Kames, Lord, on education	i,	405
——— his ideal preſence	iii,	128

	Vol.	Page
Kames, elements of criticism —	iii,	137
Kingston, Duchess of — —	i,	157
Kitchen — — —	i,	272
Knitting, awkwardness of persons learning to knit — — —	i,	123
Knowledge, how acquired, forgotten —	i,	120

L

Ladies may teach children to reason —	iii,	229
Language, defects of — —	i,	115
—— —— of chemistry — —	i,	115
Languages, first principles —	iii,	125
—— —— figurative — —	iii,	127
—— —— learning them early often hurts the temper — — —	i,	253
Latin and English literature —	iii,	102
—— how Charles the 12th was prevailed upon to learn it —— —	i,	287
Lavoisier — — —	ii,	118
Law, Chinese —— —	i,	377
Laws, sanguinary penal — —	i,	367
—— excise — —	i,	373
Lawyer, education of — —	iii,	245
Learned men, their defects —	iii,	119
Lectures fatigue sometimes —	i,	119
—— on mechanics, why not as useful as they might be —	ii,	288—296
Lee in Bedlam —— —	i,	166
Lending and borrowing — —	iii,	275
L'Esprit des Romains — —	iii,	160
Lever, laws of ——	ii,	322—326
Liars — —— —	i,	322
—— how to be treated — —	i,	344
—— ingenious, how to be cured —	i,	348
Liberty of children, in what it consists —	i,	235
—— false idea of its pleasures in childhood —— — —	i,	273
Libraries public, their use — —	iii,	60
Licinius's pitch-pipe — —	ii,	219
Literature, source of happiness —	i,	54
Little-goes — — —	i,	384
Lock, the mechanism of should be explained to a child — — —	ii,	299
Lock and key, described by act of parliament —— — —	i,	375
Locke	i, 172, 392; iii, 183, 184, 253, 278	

	Vol.	Page
Locke, ſauntering, how cured	i,	144
——— ſyllogiſms	iii,	230
London, poem of Johnſon's	iii,	290
Longuerue, Abbe de	iii,	125
——— his erudition	iii,	61
Lovelace	i,	336
Lucian	i,	140
Ludwig, John	ii,	247
Lumpers	i,	384
Lying, when ariſing from timidity, how cured	i,	346

M

Macaulay, Mrs.	i,	403
——— her letters on education	i,	336
Macheath, captain	iii,	146
Machine for ruling lines, invented by a child	iii,	106
——— for comparing uniform and accelerated motion	ii,	311
——— for ſhewing the nature of compound forces	ii,	314
Maclaurin, his admiration of Newton's queries	iii,	123
Mademoiſelle Clairon	iii,	164
Magliabechi	iii,	60
——— how many rooms full of books he ſwallowed	iii,	62
Mancheſter ſociety, papers of	ii,	118
Mandarine, Chineſe, at Paris	i,	300
Mandeville	i,	108
——— his eſſay on charity ſchools	ii,	4
Margaret's grimly ghoſt	iii,	140
Maria Chriſtina, arch-ducheſs, her amuſement	ii,	237
Marmontel, moral tale of Heureuſement	iii,	272
Marvellous, taſte for	iii,	240
Maſters	iii,	30, 36
Mathematics, not reſtrictive of imagination	ii,	276
——— improve acuteneſs of reaſoning	iii,	253
Matron, picture of one at a card-table	iii,	23
May-day Tears of old May-day, a poem	ii,	161
Meaning of words, 63 for to fall	i,	115
Mechanics, chapter on	ii,	288
——— not to be learned eaſily without its technical language be firſt rendered familiar	ii,	289

	Vol. Page
Mechanics, the firſt principles of, may be taught by accuſtoming children to attend to repairs carrying on about a houſe —	ii, 297
——— the laws of, ſhould be felt as well as ſeen — — —	ii, 317
Medal, curious one ——— —	iii, 63
Mehegan Tableau de l'Hiſtoire Moderne	ii, 141
Memory and Invention, chapter on —	iii, 56
——— retentive and recollective — —	iii, 57
——— degree in which uſeful — —	iii, 57
——— technical ——— —	iii, 69, 71
——— trial of memory — —	iii, 67
——— rhyme aſſiſts it ——— —	iii, 73
——— repetition aſſiſts it — —	iii, 72
——— how aſſiſted by reaſon —	iii, 78
——— culture of — —	iii, 87
——— for books ——— —	iii, 90
——— for buſineſs — —	iii, 91
——— chronological — —	iii, 92
——— had habits of — —	iii, 93
——— uſe of analogy — —	iii, 96
——— explanations uſeful —	iii, 96
——— converſation uſeful to memory —	iii, 99
——— children not to be praiſed for remembering words from books — —	iii, 101
——— aſſiſted by invention —	iii, 101
——— for books —— —	iii, 102
——— uſeful to furniſh materials for invention —— — —	iii, 104
——— to be cultivated with the inventive faculty —— — —	iii, 104
Merry andrew, boy frightened by one —	i, 242
Meſſages, children ſhould not be ſent with meſſages to ſervants —— —	i, 203
Metaphoric expreſſions, why unfit in reaſoning —— — —	iii, 130
Metaphyſics, whether fit for children —	ii, 143
Mezentius, not to be imitated —	i, 369
Military academies — —	ii, 385
Millet's Elémens d'Hiſtoire générale —	ii, 142
Milne's well bred ſcholar — —	ii, 176
Milton, quotation from — —	iii, 140
Mirabeau's Secret Hiſtory of the Court of Berlin —— — —	ii, 77
Models of furniture —— —	i, 34, 37
——— of looms, machinery, &c. —	i, 38

	Vol.	Page
Momentum, meaning of explained for children	ii,	308
Monboddo, Lord	i,	95
Money, not to be early given to children	iii,	277
Monopoly of expenſive maſters	iii,	18
Monſigny, Madame de, her mythology	ii,	226
Montaigne's cat	i,	172
Moore's Edward	ii,	15, 28
Moral deluſions	i,	297
—— infanities, their origin	iii,	185
Morocco men, who	i,	384
Mortimer's Student's Dictionary	ii,	140
Mothers	iii,	28
Motions, not obedient to will	i,	123
Motives, careful choice of	i,	87
Mudlarks	i,	384
Muſcles of infants do not obey their will	i,	281
Mythology	ii,	224

N

Naiveté, ill educated children ſhew it	i,	212
Nazareth	i,	100
Neapolitan proclamation	ii,	24
Nebuchadnezzar	i,	100
Necker	ii,	78
Negroes, Edwards's character of	i,	328
Negroes, why imprudent	iii,	287, 288
Nero's deſire for ſympathy	ii,	8
Newſpapers, uſeful	iii,	284
Nomenclature, change of, when uſed	iii,	131
Norris's Ovid	ii,	224
Not at home, no fraud	i,	299
Nucleus for chronology and geography	ii,	234
Numeration, new method of teaching	ii,	252
—— the ſtep in arithmetic which requires to be taught with the greateſt care	ii,	257
Nurſe; converſation between a nurſe and child	i,	183
Nurſery maids make children obſtinate	i,	284

O

Obedience, chapter on	i,	266
—— from aſſociation	i,	266
—— to orders, how to be ſecured	i,	269

	Vol.	Page
Obedience, to be ſecured by reaſon, not by force	i,	275
——— encouragements to	i,	284
Obſervation, a ſenſible one	i,	371
Obſervations, lucky ones	iii,	86
Obſtinacy, ill cured	i,	293
——— cure of	i,	285
——— eaſy to prevent, difficult to cure	i,	280
——— not a natural defect	i,	280
——— how taught by nurſes	i,	280
——— children not to be accuſed of obſtinacy	i,	284
Occupations for children	i,	37
Officer of Dragoons	ii,	365
Officers, watching, courſing officers	i,	374
Oiſters	iii,	288
Old things, not to be deſpiſed	iii,	276
Old trunk	iii,	183
Oliver Cromwell, a ſtate juggler	i,	117
Ombres Chinoiſes	ii,	132
Opera dancer	iii,	1
Opinions, changes of	iii,	225
Orators	iii,	158
Orators, education of	ii,	217
Order, its uſe	iii,	69
Otranto, caſtle of	i,	294
Ovid, tranſlation from by S—	ii,	215
Ovid's Metamorphoſes	ii,	224
Owen's travels	i,	162

P

Panorganon, an engine for demonſtrating the laws of the mechanic powers	ii,	320—341
Parents cannot ſacrifice all their time to education	i,	313
Parnel, Dr.	i,	266
Penitences, long ones, why hurtful	i,	345
Percy's collection of ancient ballads	iii,	147
Pere Bourgeois	i,	113
Perſpective, eaſily learned	ii,	301
Peter the wild boy	i,	95
—— the Great, his neglect of his ſon	i,	364
Petitioners, idle children	i,	249
Philippics	i,	141
Philoſopher, ſaying of one	i,	337
Philoſophical language	i,	115

	Vol.	Page
Picture, by Peter of Cortona	iii,	143
Pinelli, library	iii,	133
Piozzi, Mrs. Engliſh ſynonymy	iii,	274
Plato, name ſeldom heard at tea tables	ii,	381
Play	i,	57
—— of birds, beaſts, and fiſhes	i,	31
—— an empty room uſeful	i,	199
—— only a change of employment	i,	144
Plutarch's Lives	ii, 182,	225
Poellartarorincourac	i,	93
Poetry difficult to children	ii, 154—	168
Point, mathematical, diſpute about	ii,	285
Politeneſs	i,	298
Polyſpe:chon	i,	149
Pope ii, 207,	iii, 143,	211
—— lines from the Rape of the Lock, why eaſily remembered	iii,	73
Portable machine for drawing perſpective	ii,	303
Poſitive children	i,	289
Potter's Æſchylus	ii,	226
Praiſe, management of	ii,	5
Precept and example muſt agree	i,	36
Preceptors, private	i,	119
Precipitation, chemical	ii,	348
Prejudices,	iii,	94
—— againſt ſects, effects of	i,	386
—— of taſte	iii,	134
Pride	ii, 70,—	76
Prieſtley, Dr.	iii,	120
hiſtory of viſion	ii,	118
Biographical Chart	ii,	139
hiſtories of Viſion and Electricity	iii,	80
hiſtory of electricity	iii,	66
Princeſs, miſtakes in educa ion of her ſon	i,	236
Principles of taſte illuſtrated	iii,	136
—— how they aſſiſt invention and memory	iii,	113
—— falſe ones, how corrected	i,	343
Printing, art of	iii, 58,	60
Prints wanted in books of mythology	ii,	230
Prints of machines proper for children	ii,	306
Private preceptors to be munificently rewarded	ii,	386
Problems to exerciſe invention	iii, 106,	115
Projects, excellent eſſay on	iii,	285

	Vol.	Page
Promiſes, why dangerous	ii,	379
Proofs of boys abilities, what	ii,	369
Propoſitions, identical	iii,	237
Propoſitions, children cannot diſtinguiſh general from particular	iii,	234
Prudence and Economy, chapter on	iii,	255
——— how to teach prudence	iii,	256—270
——— term unknown to negroes	iii,	288
——— not incompatible with generoſity	iii,	289
Public and private education	i,	340
——— ——— chapter on	ii,	356—386
Puniſhment, not to be great for ſmall faults	i,	299
——— its nature	i,	351
——— ſhould be immediate and inevitable	i,	366
——— when too ſevere defeats its own purpoſes	i,	382
——— duration of	i,	389
Puzzles and puns, hurtful to children	i,	213

Q

Queen of Sheba	i,	318
Queſtions, how to ſtate them to children	iii,	223
——— apparently ſimple, ſometimes difficult	iii	251

R

Racine, odd volume of	iii,	63
Radcliffe, Mrs.	ii,	237
Rainbow, child's experiments upon	i,	84
Rambler	ii,	118
Rarities	iii,	288
Read, teaching to	i,	62
Reading	i,	99
——— reading aloud	ii,	120
——— its effects on memory	iii,	100
Reaſon increaſes the effect of puniſhment	i,	359
Reaſoning, abſurd ſubjects given for exerciſing it in children	iii,	235
——— refers to facts	iii,	235
——— moral prudence	iii,	253, 264
——— cannot be always oppoſed to falſe aſſociations	iii,	268
Refuſals to children ſhould be diſtinct	i,	249
Reid, Profeſſor	ii,	250
Remedies for defects in public education	i,	341

	Vol.	Page
Repartee, talent for, not an advantage to children	iii,	208
Repetition, useful to vicious children	i,	158
Repetition, not a test of memory	iii,	75
—— what class of children fondest of it	iii,	88
Reverie, castle building	iii,	187
Reviews	ii,	118
Reward, plum pudding not a reward of truth	i,	363
Rewards and punishments, chapter on	i,	351
Reynolds, Sir Joshua	i,	160
—, his discourses ii, 50; iii, 31, 34, 137,		151
Richard III.	iii,	145
Riches, what they bestow	iii,	133
Ridicule, its effects on morality	i,	384
——, the test of truth	i,	334
Right and wrong	i,	360
Robbers, German play,	iii,	145
Robins, Benjamin, on mathematical evidence	ii,	285
Robertson	ii,	179
Rochefoucault's seeming paradox	i,	407
Rogues in books amuse us	i,	336
Roland, Madame ii, 182;	iii,	158
——, her opinion of the value of accomplishments	iii,	13
Romans employed difference of shape, instead of difference of place, in numeration	ii,	261
Rollin, on geography, recommended	ii,	243
Rook's nest	i,	213
Rooms for children	i,	202
Rousseau i, 195, 197, ii, 176, 225;	iii,	195
—— on learning unmeaning words	i, 97,	151
—— his opinion on female education	i,	258
—— his advice impracticable	i, 272,	295
—— Emilius and gardener	i,	296
—— paradox concerning habit	iii,	265
Rule of three explained	ii,	268
Rule and pencil should be early put into the hands of children	i,	300
Rumford, Count	i,	251
S		
St. Pierre, Etudes de la Nature ii, 433;	iii,	221
Salt, what a salt is	ii,	353

	Vol.	Page
Saturation — —	ii,	346
Schoolboy, his idea of life — —	ii,	380
Schoolmaſters ſhould be treated by parents with reſpect — —	ii,	376
Schools, common objections to, and advantages of — —	ii,	359
——— ſometimes reſorted to as infirmaries — — —	ii,	363
——— might be improved by parents more than by maſters — —	ii,	367
——— public, cannot teach truth —	i,	340
Sciences, abſtract principles of, ſhould be frequently recurred to, as they are not recalled to the memory by common accidents —— —	ii,	227
Screen, Indian —— —	iii,	135
Sections, the uſe of, ſhould be taught early	ii,	301
Segrais, M. de, why a bad preceptor —	i,	151
Self-ſufficiency, cure of — —	iii,	121
Senſes may and ſhould be cultivated —	iii,	195
Senſibility —— —	ii,	50
Serena, eſtimate of her temper —	i,	262
Sermon, Chineſe —— —	i,	113
Servants —— i, 42,	185—	206
——— ſhould not frequent the rooms where children reſide —— —	i,	202
——— err towards children from good nature —— —	i,	203
——— teach children to tell lies —	i,	303
——— children ſhould not be ſent with meſſages to ſervants —— —	i,	203
Sevigne, Madame de —— —	i,	338
Shadows, coloured —— —	i,	86
——— child afraid of —— —	i,	240
Shame —— —	i,	394
——— when deprived of its effects —	i,	372
——— falſe ſhame, its effects —	iii,	284
Sheridan —— —	iii,	104
Shylock, his education of Jeſſica —	iii,	169
Silence, too much required from children	i,	199
Silleri, Madame de —— —	ii,	35
Simonides, his artificial memory —	iii,	80
Simplicity, a ſource of the ſublime —	iii,	147
Slang —— —	i,	385
Slave merchant —— —	iii,	186
Slaves, Iriſh labourers ſo called —	i,	328

	Vol.	Page
Slingers, Balearic	i,	130
Slow children, how to manage	i,	138
Smart ſayings, no proof of real ability	i,	218
Smellie	ii,	116
Smith's theory of moral ſentiments,	ii, 7; iii,	168
Smith, Sir Sidney, his letter	iii,	249
Smuggling, not repreſſed by high penalties	i,	373
Snake, alluſion to, how erroneous	iii,	248
Sociability	ii,	24
Society of children, ſhould be attended to	ii,	13
Socratic mode of reaſoning	iii,	226
Solitary board, a good plaything	i,	32
Solution, chemical	ii,	344
Son parting from a good father	ii,	381
Sophiſm in Cicero detected by a child	iii,	223
Sorbonne, Dr. of, his caſe of conſcience	i,	217
Sow, eloquent deſcription of	ii,	4
Space and time, as uſed in mechanics, more puzzling to metaphyſicians than to the vulgar	ii,	290
Spain, king of, ill humoured in Lent	i,	248
Speaking in public, remarks on	ii,	218
Spelling, how to teach	i,	74
Spencer's Polymetis	ii,	230
Spiders of Barbadoes	iii,	181
——— whether they are fond of muſic	iii,	241
Spoiled children, remarks on	i, 245,	246
Star, newſpaper	i,	169
Steam engine	iii,	592
Stemmata Latinitatis, a uſeful book	ii,	222
Sterne, ſecret of his art of writing	iii,	152
Stewart, on the human mind	i,	97
——— his eloquence	i,	108
——— on the proceſſes of reaſoning and invention	i,	120
——— what he ſays on memory	iii,	128
Stilts, inconvenience of bombaſt compared to	ii,	219
Stimulus of praiſe to be carefully managed	i, 128; ii.	66
Stories, improbable	iii,	225
Student, Mortimer's, uſeful	ii,	140
Sturgeon, boy who acquired antipathy againſt	iii,	179
Sublime, taſte for	iii,	140
——— why not felt by children	iii,	147
——— objects of, not always terrific	iii,	146
Subtraction, explained	ii,	263
Succeſs, means of enſuring	i,	138
——— in the world, an equivocal phraſe	i,	52
——— the proper reward of perſeverance	i,	136

	Vol.	Page
Suggeſtion, language of	iii,	152
Sully and Henry IV.	i,	315
Summary	iii,	291
Surpriſe, why the ſame things do not create ſurpriſe in children and in men	iii,	147
Suſpenſion, a figure of ſpeech	iii,	140
Sweet, 10 meanings of in Johnſon's Dictionary	i,	115
Swift, Dean, his temper	i,	259
Sybarite, compared with a Stoic	i,	265
Sylphs, in Rape of the Lock, their names eaſily remembered, why	iii,	73
Symbols in arithmetic, their uſe	ii,	249
Sympathy and Senſibility, chapter on	ii,	1—53
——— management of	ii,	1—24
——— better reward than praiſe	i,	132
——— no match for appetite	ii,	14
——— and imitation	ii,	59, 60

T

Tact, meaning of the word	iii,	265
Talents, dependent on each other	i,	40
Tales, Perſian	iii,	272
Tare and tret	ii,	35
Taſks	i,	57
Taſte and Imagination, chapter on	iii,	127
—— prejudices of	iii,	134
—— how to form	iii.	134
—— good books on taſte	iii,	136, 137
—— for poetry and eloquence	iii,	157
Taſtes, no reaſoning on	iii,	273
Technical memory, how far uſeful, and the contrary	ii,	235
Technical terms	ii,	290
Temper, chapter on	i,	238—265
——— of beauties	i,	262
——— to be educated by realities	i,	262
——— may be corrected by the underſtanding	i,	263
——— Epicurean doctrine, how it effects the temper	i,	265
——— command of, a part of prudence	iii,	272
Temptation	i,	372
Terms, new ones to be produced ſlowly	i,	120
——— to be repeated	i,	121
——— logical, how learned	iii,	132
Terror in young children, how to be prevented	i,	240

	Vol.	Page
Teſt paper	ii,	351
Themiſtocles, ſaying of his	iii,	80
Theon, a Grecian painter	iii,	162
Thinking, fatigue	i,	122
Threatening	i,	378
Tiberius had ſympathy	ii,	7
Time, to be allowed for in education	i,	194
Timidity, how to be managed	i,	138
Timotheus	iii,	30
Toby, Uncle	ii,	30
Tom Jones	i,	336
Tooke, Horne	ii,	203
Tools for children	i,	34
Top, whipping, Virgil	i,	143
Tott, Baron de, boy and toy	ii,	70
Townſend's Travels into Spain	i,	247
Toy-ſhops	i,	47, 56
Tranſition of thought, quickneſs of, called genius	i,	169
Trials, artificial trials hurtful	i,	264
—— for children	iii,	243
Tricks, awkward, how to prevent	i,	127
—— cure of	i,	128
Trifles not to be made of conſequence to girls	i,	262
True Briton, picture of	i,	328
Truſt, when we ſhould truſt children	i,	331
Truth, chapter on	i,	295
—— neceſſary in education	i,	302
—— its advantages not obvious to young children	i,	304
—— deviations from truth not always intentional in children	i,	305
—— and falſehood, nature of, not underſtood by young children	i,	306
—— inborn	i,	329
—— examples of from real life	i,	346
—— its value, how to be taught to children	i,	330
—— how to be taught	i,	331
—— not learned at public ſchools	i,	340
Turks, their pride	ii,	70
Tutor, deaf one, makes a dumb child	i,	151
——s, change of hurtful	i,	401
Tycho Brahe, noſe loſt in a mathematical diſpute	ii,	287

	Vol. Page
U	
Ulysses	ii, 74
Universities	ii, 383
Utterer of base coin	i, 276
V	
Vapy's exercises	ii, 222
—— select sentences	ii, 224
Vanity, pride and ambition, chapter on	ii, 54
—— cure of	ii, 58
—— not to be imprudently suppressed	ii, 60
Varieties of literature	ii, 24
Variety, too much fatigues	i, 118
Velocity, manner of explaining	ii, 307
Vernet's Theorie des Sentimens agréables	ii, 22; iii, 136
Vestris	iii, 165
Vienna, the eating houses there	i, 162
Virgil's Eclogues and Georgics	ii, 225
Virtues, prudential, proper reward of	i, 410
Visible images	iii, 134
Visual rays	iii, 119
Vivacious children, how to be managed	i, 151
Volatile geniusses	i, 146
Volatility, chemical	ii, 348
Volney	ii, 70
Voltaire	ii, 63
—— bon mot	iii, 255
W	
Walking, learning to walk a tremendous operation	i, 102
Walton, on mathematical evidence	ii, 285
Warrior's code	", 338
Warton's Ode to Fancy	iii, 128
Waste not, want not	iii, 276
West India planters, why disposed to imprudence	iii, 287
Wharton, Duke of, his Proteus character	i, 401
White of Selborne's Naturalist's Calendar	ii, 116; iii, 228
Wild Oats, comedy of	i, 123
Wilkins, on universal language	ii, 167
Williams, David, his Lectures on Education	i, 339, 340, 394, 403
Windlass	ii, 317
Wit compared with judgment	iii, 208
—— and humour	i, 335

	Vol.	Page
Wit and judgment, chapter on	iii,	193—254
——— ——— depend on different habits, not incompatible — —	iii,	208
—— how to be cultivated —	iii,	209
—— dangers of ——— —	iii,	208
—— thoſe children not fond of early, who have been taught to reaſon —	iii,	211
—— engrafted upon judgment —	iii,	220
Women, temper of great conſequence to —	i,	258
——— ——— —	iii,	1
——— prudence to be early taught to them — — —	iii,	273
Wonder and admiration —— —	iii,	151
Words, to be carefully explained —	i,	99
——— to be learned early as well as things	i,	100
——— how acquired —— —	i,	103
——— ambiguous —— —	i,	114
——— ſuggeſting trains of ideas —	iii,	152
——— and ideas ſhould be connected	iii, 198,	205
——— inaccuracy of — —	iii, 248,	249
——— ſuggeſt trains of ideas in reaſoning	iii,	250
World —— — —	ii,	118
Writing, letter writing — —	ii,	176

X

Xenophon, military faith — —	i,	339

Y

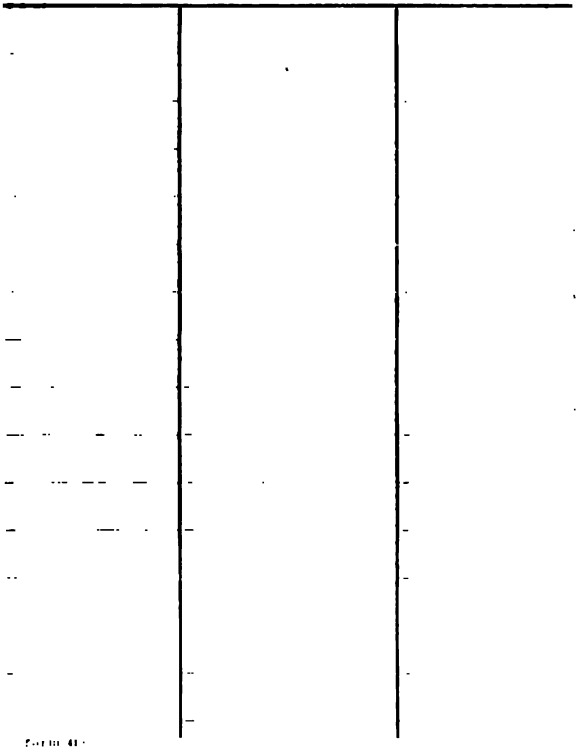
Yellow jacket, uſe of —— —	i,	385

Z

Zeluco, Mr. Transfer —— —	iii,	178
Zimmermann — —— —	iii,	179
Zoonomia i, 172, 393; iii, 72, 129, 164,	178,	182
——— cure of vanity — —	ii,	58

FINIS.

Printed by J. Crowder, Warwick-Square.

THE NEW YORK PUBLIC LIBRARY
REFERENCE DEPARTMENT

This book is under no circumstances to be taken from the Building